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Proceedings
from the fourth
Information Systems Client
Conference

FREDERICTON, N. B.

NOVEMBER 18-19, 1987

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN
NOVEMBER 18-19, 1987

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INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

WELCOME

presented by

DIANNE YATES

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN **NOVEMBER 18 - 19, 1987**

TO: ALL PARTICIPANTS

On behalf of the Client Conference Planning Committee and the Information Systems Division, welcome to the fourth Information Systems Clients Conference.

The central theme of this conference is "Office Automation". The presentations scheduled will be focused around industry trends and departmental experiences.

We believe this meeting will assist the Information Systems Division in better understanding and of course, better servicing clients; and assist the departments in sharing experiences to better utilize Information Systems technology.

We believe this is a timely and relevant topic for departments. We are counting on your active participation. Thank you for showing your support.

D.Y.

DIANNE YATES
CHAIRPERSON
DEPARTMENT OF JUSTICE
KINGS PLACE ROOM 691

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

OPENING REMARKS

presented by

JERRIE FOWLER

INFORMATION SYSTEMS CLIENT CONFERENCE

NOVEMBER 1987

OPENING REMARKS

by JERRIE FOWLER

I would like to thank you for having me here, and particularly would also like to thank the organizing committee, as Dianne said, consisting of Diane Yates, Gary Baird, Arnie Wilkins, assisted by Gary Andrews. I think they have done a very good job of putting together an agenda on office automation. Looking through it there seems to be a number of interesting subjects, a number of gifted speakers, some of which have been recycled three or four times, however I don't believe that means you are going to hear the same things rehashed as in previous conferences because I think there are some new and interesting subjects on the agenda. More importantly, I think, the conference gives everyone an opportunity to mingle with their peers in ISD, with their counterparts in other departments, and I think that the exchange of information that takes place, at the luncheons, coffee breaks and after hours is probably as important as the content of the material that is presented in the conference. I think that it is through these informal talks, that we find out what others are doing, and use their experiences to improve our own program deliveries in our own departments. I know, I have truly found these conferences a learning experience both in the ideas that are coming forth, and the ability to talk to the clients on a one-to-one basis.

Reputably I don't get to see as often as I perhaps should, the feedback that involves us in ISD to make a lot of changes, to accommodate the clients and end up providing a better delivery of services and on that note I guess I will turn it back over to the chairman. Thank you very much.

INFORMATION SYSTEM CLIENT CONFERENCE

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INTRODUCTION TO OFFICE AUTOMATION

presented by

DANNY KEIZER

What is ***Office Automation***?

IBM would define in terms of ***SolutionPac's*** addressing the needs of information workers on an enterprise wide scale.

WANG would prefer to talk about ***Operations Automation***

DMR would say that Office Automation is ***End User Computing***

Danny Keizer's definition:

Office Automation is the application of electronic information systems technology to tasks commonly performed by office workers.

- Packaged software is almost always used.
- Specialized hardware may be required.
- User interfaces are easily learned and forgiving.
- Automation usually results in improvements in worker efficiency and effectiveness.
- New or enhanced functions are often added benefits.

Office Automation begins with an analysis / planning phase.

A particular vendor's ***OA System*** is usually selected for installation.

- An ***OA System*** addresses a number of tasks in a single package.
- The ***OA System*** selected may work with existing equipment or new equipment may be required.

There are exceptions—some organizations begin with a single task and expand as required (if possible)

Tasks that are addressed

- Word Processing
- Electronic Mail
- Decision Support Tools
  - Spreadsheets
  - Files / Data bases / Query and Reporting Tools
- Notes, to do lists, phone directory, correspondence logs, other personal lists
- Time management
  - Calendars
  - Reminders
  - Meeting / resource scheduling

Tasks that are addressed (continued)

- Bulletin Boards
- Interfaces to other applications
- Project management

Where the work gets done

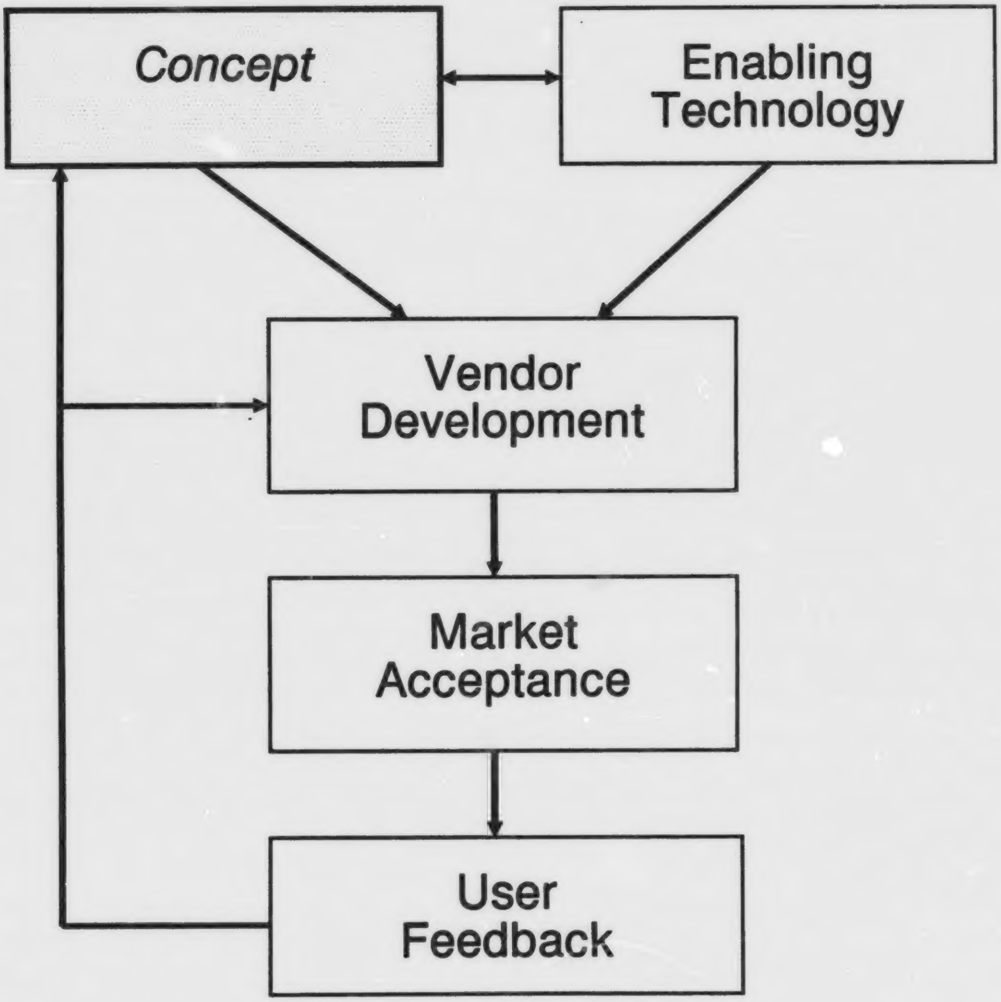
- Tasks demanding dedicated computing power and/or a lot of user interaction best addressed on PC's or intelligent workstations
- PC's can be networked to provide some work group oriented services—but the software isn't fully there yet
- Most workgroup, departmental or corporate oriented services involve the use of mini computers, mainframe computers or both for computing services and the storage and sharing of information.

Disjoint technologies are also used

- Stand alone Word Processing systems—Wang, AES, Micom, PC's with WP software, etc.
- Public mail systems—Envoy 100, Dialcom, etc.
- Facsimile equipment
- Image processing equipment—scanners, OCR, etc.
- Voice mail equipment.
- Microform filing and retrieval equipment.
- Desktop publishing systems

Where possible, integration with ***OA Systems*** is taking place.

Where does the software/hardware come from?



Current Office Automation Developments

Smooth intergration of PC, Departmental and Mainframe based products.

Compound document architectures—data, text, voice and image.

Transparent mail bridges between different vendors' products.

A Short Glossary of Office Automation Terms

All-in-One. DEC's "Office Automation System" – chiefly for the VAX/VMS line of minicomputers.

Bulletin Board. An area, mail box, etc. where messages can be posted for access on demand by a group of target users. The messages are not addressed to particular users but reside in a place that users can access.

Compound Document. A document containing more than one of the four forms of information – data, text, voice and image.

Compound Document Architecture. A document architecture that facilitates the inclusion of multiple forms of information – data, text, voice and image – in a single document.

DCA. Document Content Architecture – IBM's document architecture.

Decision Support Tools. User oriented application packages which can be used in supporting business decisions. eg. spreadsheets, query/reporting tools, etc.

Dialcom. An electronic mail system offered by CNCP Telecommmunications. Local subscribers gain access through the DataPac network. *Dialcom* has an advantage over Envoy 100 in that binary data files can be transmitted and an error checking protocol (XMODEM) can be used.

DISSOS. IBM's "Office Automation System" for MVS and MVS/XA based mianframe computers.

Document Architecture. A formal definition of the manner in which documents are represented within a word processing or office automation system.

Electronic Mail. Transmittal of mail by entry into a computer system and automatic routing to the addressee (over communications lines if necessary). Electronic mail systems are characterized by *mail boxes* assigned to each user. Mail boxes are used for storage of mail pending reading / processing. Mail can consist of memos, phone messages, documents, data files, images, compound documents, etc.

Envoy 100. An electronic mail system offered by Telecom Canada (imagine that, the phone company). The public, organizations, etc. can subscribe to the service and gain access through the DataPac network. *Envoy* messages must be composed exclusively of ASCII text. It can not be used to send documents, data files, images, etc. unless first converted to an ASCII representation.

Facsimilie. A technology enabling the transmission of images over communications lines (ie. phone lines). A scanning device is used to create a digital representation of a page at the sending station. The digital representation is sent to the target station where is is converted to a form that can be printed. With special PC interface boards it is possible to capture the digital representation for future reference or special processing (eg. OCR). Although *facsimilie* was once noted for poor image quality, current standards approach the resolution of popular desktop laser printers.

FAX. Abbreviation for facsimilie.

Glossaries. Special word processing files consisting of stored keystrokes and (optionally) decision/branching logic that can be recalled from within a document just as if being typed from the keyboard. *Glossaries* are used to make repetitive operations more convenient. (Some vendors use terms like Key Procedures or Macros to refer to Glossaries.)

Intelligent Workstation. A desktop workstation with built in processor and memory. When used properly can off load processing from the host connected to. Some *intelligent workstations* may have disk storage.

Mail Bridge. A hardware/software/communications product that allows interconnection of electronic mail systems. Good *mail bridges* permit individual users to see all other users as if they were part of the same mail system. ie. An All-in-One user sending a message to a Wang Office user would use All-in-One commands and would address mail items to a mail box that appeared to be part of the All-in-One system.

Mail Merge. A feature of word processing systems that allows the merging of information from a data file with a word processing document. One copy of the document would be produced for each record selected from the data file. This feature is commonly used to produce personalized copies of letters, memos, reports, etc. – by merging in names, addresses, personal names, etc.

A Short Glossary of Office Automation Terms

Microform. A piece of microfilm (fiche or roll) containing images of printed pages, pictures, etc. Microform systems permit easy retrieval of information from microfoms by using indexes stored in a computer system and special handling equipment.

OA. Acronym for Office Automation.

OCR. Acronym for Optical Character Recognition – the process of creating text from a picture of text (ie. printed page, scanned image, facsimilie image, etc.

Office Automation. The application of electronic information systems technology to tasks commonly performed by office workers.

Office Automation System. A collection of software (and possibly hardware) specifically designed to automate a series of office tasks.

Personal Services/PC. IBM's "Office Automation System" for the PC.

Personal Services/36. IBM's "Office Automation System" for the System 36 minicomputer.

PROFS. IBM's "Office Automation System" for VM based mianframe computers.

Packaged Software. Software which arrives from the developer in useable form. Installation may be performed by the purchaser but custom changes will not normally be made.

Scanner. A device that converts pictures into a digital form for storage, manipulation, transmission, etc.

Search and Replace. Word processing function that permits replacement of a specified string (letter, word, phrase, etc.) with another string selectively or throughout a document.

Voice Mail. A technology allowing the conversion of voice messages to digital form for storage and forwarding.

Wang Office. Wang's "Office Automation System" – chiefly for it's VS line of minicomputers.

WITA. Wang's compound document architecture.

Xerox Ventura Publisher

Xerox Ventura Publisher is a Desktop Publishing application which runs on IBM PC/XT's, AT's, PS/2's and compatibles.

Ventura provides a framework for page makeup involving ASCII text, Word Processing documents, images, drawings, and graphs. Information can be brought in easily from a variety of PC based applications:

- PC word processing packages including Multimate, Word Perfect, Microsoft Word, Windows Write, Wordstar, Displaywrite III and IV, Xerox Writer and Xywrite,
- Paint and Scanning packages supporting GEM, Halo DPE, PC Paintbrush or MAC Paint formats,
- Graphics and Drawing packages supporting GEM, AutoCAD .SLD, Lotus .PIC, Videoshow, Mentor Gr, Mac PICT, CGM, Postscript, or Hewlett Packard HPGL formats.

Documents from Wang or other dedicated word processing environments require intermediate conversion to one of the PC word processing formats – this can be accomplished using Keyword 7000, VSCOM or other conversion methods.

Ventura's use of style sheets and paragraph tags make it an effective tool for setting up large documents for high quality output. Standard word processing text attributes (bold, italic, etc.) are preserved. The Search/Replace and Macro functions of originating WP packages can be used to prepare documents for use with predefined style sheets. Documents can be as large as 500K.

Ventura supports a variety of graphics adapters/displays including CGA, EGA, Hercules Graphics Card and full page displays. Dot matrix and laser printers (including Postscript printers) can be used for output.

Ventura's performance is noteable in that it can be used effectively with an XT class machine. An adequate setup – including an IBM XT compatible PC with Hercules compatible graphics, software and a 2MB HP LaserJet Printer – costs less than $8,000. Performance is better still with more powerful machines.

At the present time, Ventura runs in the GEM windowing environment (a runtime copy of GEM is included). Network, Microsoft windows and OS/2 versions are under development.

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

PLANNING OFFICE AUTOMATION

presented by

CAROL YOUNG

DEPARTMENT OF TRANSPORTATION

OFFICE AUTOMATION REPORT

by
Carol L Young

I've been asked here today to tell you about how our department got started with office automation, the path we've taken during the past four years, and where we are today.

Starting back in September 1983, our department requested that an 'Office Technology Study' be undertaken by a group from Supply and Services, then known as the Office Technology Group. An Office Automation Steering Committee was formed within our department at that time.

The purpose of the study was to provide DOT management with sufficient information to allow for an informed decision on the introduction of office technology tools. Emphasis was placed on applications that could be managed at a support staff level.

The Steering Committee, in cooperation with the staff of the Office Technology Group, identified a number of 'Office Automation Opportunities' within the department. These 'opportunities' were essentially activities where the use of a multi-terminal distributed Office Automation system could result in substantial benefits to the department in one or more of the following areas:

(1) A reduction in staff hours required to complete tasks, due to the elimination of duplicate activities.

(2) An improvement in productivity, due to the automation of tasks which are currently processed manually

(3) A reduction in the number of 'shadow files' currently kept in various areas within the department.

The opportunities identified were broken down into two basic categories:

(1) Word processing opportunities - areas where the department could achieve significant benefits, merely through the application of word processing to some of the repetitive typing operations carried out within the department.

(2) List processing opportunities - a large number of manual lists were being retained within the department. Of these, at least 18 applications were identified in which duplicate or similar information was being kept

by more than one branch within head office. The automation of these lists would result in a substantial reduction in the effort required to maintain them, and also eliminate the need for maintaining multiple copies of the information.

At the time of the study, the department's typing equipment consisted of :

35 electric and correcting typewriters

5 electronic (window typewriters)

3 memory devices with no screen editing facilities

2 screen based floppy disk word processing machines.

Part of the study included a typing survey of the department. During the 2 week survey of typing volumes, the 46 individuals surveyed produced about 7000 lines of output. Of this, the Word Processing Centre produced less than 15% of the total. It was recommended that about 80% of all typed material should be automated through terminal based word processing. It was estimated that a reduction of 120 hours per week of typing time could be achieved by implementing a system to reach this level of automation.

So, it was agreed that word processing should be introduced in the department. Now the question was whether to go with a centralized or a decentralized approach to WP. There are two schools of thought on this. The centralized approach whereby word processing is brought under the control of a word processing center staffed be specialists is more efficient in terms of output. On the other hand, treating word processing as simply another function assigned to operating branches, while not as efficient, is more effective. The reason for this is that word processing is not an isolated function, but one which builds up a wealth of information which should be available through terminals at the branch level.

The study was completed in March 1985 and a final report presented to DOT senior management at that time. It was recommended that the department proceed with the preparation of a formal request for proposal, with the intention of soliciting quotations from various hardware vendors. This would provide the department with a better estimate of the actual costs associated with such a system.

The department went ahead with this recommendation, and by the first of the next year, had selected a hardware vendor. We chose to go with Digital Equipment Corporation.

The hardware purchased at that time was :

A MicroVAX II minicomputer

6 ASCII Terminals

15 DECmate III Word Processors

1 Laser Printer

1 Line printer

4 Letter Quality Printers

The DECmate III word processors have since been networked to the MicroVAX II allowing for access to an Office Automation system (All-In-1) resident on the VAX.

The All-In-1 system includes the following :

Word Processing

Electronic Mail

Electonic Messaging

Desk Management

Time Management

Communications to other systems

Almost all word processing is done in a standalone mode with the exception of special applications where document or library sharing is required. The system is also used for electronic messaging. Full use is not yet being made of the other office automation functions, the reason being lack of training among the users.

We are currently in the process of reclassifying one of our positions to that of an "Office Automation Coordinator". Once in place, this person will be responsible for implementing office automation in the department. To date, the word processing function has been concentrated on exclusively.

Two levels of training are given to our word processing operators. There is a basic course teaching the fundamentals of creating, editing and printing documents. There is also an advanced course teaching list processing, sorting, math functions and the use of the departmental network. A course is currently being developed to train in the All-In-1 package.

Currently, we have approximately 30 word processing systems distributed throughout our branch offices and districts around the province. A WP system now consists of either a DECmate III running WPS software with a Letter-Quality daisy wheel printer OR a microcomputer running WPS software with a printer. The department has standardized on the WPS software for all word processing and we are just completing document conversion efforts from the other packages that have been in use in the past.

Future plans for office automation in our department include allowing access to the departmental minicomputer from our district offices, promotion of the All-In-1 package on a department-wide basis and involvement of our departmental management in the system.

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PANEL DISCUSSION

moderated by

JEAN-CLAUDE HACHE

Detailed text not available at time of publication.

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OFFICE AUTOMATION UPDATES

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

OFFICE AUTOMATION EXPERIENCES

presented by

DAVID MACLEOD

Detailed text not available at time of publication.

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

OFFICE AUTOMATION EXPERIENCES

presented by

GARY FRASER

OFFICE AUTOMATION EXPERIENCES

DEPARTMENT OF

COMMERCE AND TECHNOLOGY

November 18, 1987

OUTLINE

- Overview of Hardware
- Overview of Software
- Implementation Process
- Specific Examples
- Current Status
- Conclusions

OVERVIEW OF HARDWARE

IBM S/36 Minicomputer

- Strictly a Departmental computer but we are quite capable of communicating with ????.
- The current 1.72 Mb main memory and processor are being upgraded.
- Disk Storage - 2 @ 200 Mb
- Network consists of approximately 50 devices directly and remotely connected and includes mono and colour workstations, mono and colour PC's, Displaywriters and printers.
- Communications

Line 1 - Internal to Displaywriter/Printer originally for letter quality printing but now used to convert information to a format acceptable to a Wang.

Line 2 - Originally to a remote C&T operation, now used to increase the number of terminals connected to the S/36.

Line 3 - DRIE and CIC on a shared line with remote 5250 emulation on a PC.

Line 4 - HRIS Marysville.

Also have a Sperry IT with emulation and modem for file transfer and/or document download to Word Perfect and subsequent communication to ???? and vice versa.

OVERVIEW OF SOFTWARE

THE USE OF COMPUTERS IN THE OFFICE HAS BECOME AS IMPORTANT AN APPLICATION AS THE TRADITIONAL DATA PROCESSING FUNCTIONS. SYSTEM/36 HAS SUPPORT FOR OFFICE APPLICATIONS AND DATA PROCESSING APPLICATIONS ON THE SAME SYSTEM USING THE SAME DISPLAY STATIONS AND PRINTERS. DATA PROCESSING AND OFFICE APPLICATION SUPPORT ARE PROVIDED BY THREE PROGRAMS:

- DISPLAYWRITE/36 (DW/36) INCLUDES A WORD PROCESSING PROGRAM TO HELP WITH ALL YOUR DOCUMENT PREPARATION.
- PERSONAL SERVICES/36 (PS/36) IS A SET OF PROGRAMS TO AUTOMATE OFFICE TASKS.
- QUERY/36, A PROGRAM TO PROVIDE TIMELY REPORTS OF INFORMATION STORED ON THE COMPUTER.

THESE PROGRAMS WORK TOGETHER OR SEPARATELY TO HELP MAKE YOUR OFFICE MORE EFFICIENT. FOR EXAMPLE, DW/36 CAN BE USED TO PREPARE MEMOS THEN PS/36 CAN ELECTRONICALLY DISTRIBUTE THE MEMOS TO OTHER OFFICE USERS. QUERY/36 CAN BE USED TO SELECT AND DISPLAY INFORMATION FROM YOUR FILES, AND DW/36 CAN CREATE LETTERS AND REPORTS FROM THIS INFORMATION.

ONE THING THAT ALL THESE PROGRAMS HAVE IN COMMON IS THAT THEY ARE DESIGNED TO BE EASY TO USE. THEY ARE ALSO DESIGNED TO BE EASILY LEARNED AT THE DISPLAY STATION. ALL OF THE DOCUMENTATION REQUIRED IS AVAILABLE ON THE SYSTEM AND CAN BE VIEWED WHILE USING THE PROGRAM BY PRESSING THE HELP KEY OR BY SELECTING A MENU OPTION. THIS RELIEVES YOU OF IMPOSING STACKS OF MANUALS ON YOUR DESK.

ANOTHER EASE-OF-USE FEATURE IS THE WAY PROGRAMS REQUEST INFORMATION FROM YOU. YOU DON'T NEED TO KNOW ANY PROGRAMMING LANGUAGES OR COMMAND LANGUAGES TO USE THE PROGRAMS. YOU CAN RESPOND TO PROMPTS AND SELECT ITEMS FROM MENUS AND LISTS. FOR EXAMPLE, IF YOU FORGET THE NAME OF A DOCUMENT, YOU CAN VIEW A LIST OF ALL YOUR DOCUMENTS AND CHOOSE ONE FROM THE LIST. IF, AT ANY TIME, WHILE YOU ARE RUNNING ONE OF THE PROGRAMS, YOU DON'T UNDERSTAND SOMETHING, YOU CAN PRESS THE HELP KEY. YOU WILL SEE ADDITIONAL INFORMATION ABOUT THE DISPLAY AND FIELD YOU ARE CURRENTLY WORKING ON.

DW/36 IS A WORD PROCESSING PROGRAM THAT INCLUDES A TEXT EDITOR TO CREATE AND REVISE DOCUMENTS, PRINTING AND VIEWING CAPABILITIES, AND SUPPORT FOR CREATING AND MAINTAINING FOLDERS. YOU CAN ALSO USE DW/36 TO CREATE HELP TEXT FOR YOUR PROGRAMMING APPLICATIONS. DOCUMENTS CAN BE EXCHANGED BETWEEN DW/36 AND A STAND-ALONE DISPLAYWRITER AND CAN BE SENT FROM DW/36 TO A PC WORD PROCESSING FORMAT LIKE WORD PERFECT.

THE CAPABILITIES OF DW/36 CAN BE DIVIDED INTO THE FOLLOWING GENERAL AREAS:

- TEXT EDITING
- MERGING DATA WITH TEXT
- FORMATTING AND PRINTING
- MANAGING DOCUMENTS AND FOLDERS
- CREATING HELP TEXT.

PS/36 IS A GROUP OF PROGRAMS THAT PROVIDE AUTOMATED WAYS TO PERFORM EVERYDAY OFFICE TASKS. FOR EXAMPLE, YOU CAN USE PS/36 TO SCHEDULE MEETINGS, SEND AND RECEIVE MAIL, SEND MESSAGES, MAINTAIN A DIRECTORY OF NAMES, AND KEEP A LOG OF PRINTED MAIL. YOU CAN ALSO SEND AND RECEIVE DOCUMENTS TO AND FROM OTHER SYSTEMS OR DEVICES.

THE SUPPORT THE PS/36 PROVIDES CAN BE DIVIDED INTO THE FOLLOWING GENERAL AREAS:

- HANDLING MAIL
- CREATING AND MAINTAINING FOLDERS
- WORKING WITH THE DIRECTORY
- WORKING WITH GROUPS
- HANDLING MESSAGES.

QUERY/36

QUERY/36 IS A PROGRAM THAT ASKS YOU QUESTIONS SO THAT YOU CAN RETRIEVE SELECTED INFORMATION FROM A FILE OR ENTER INFORMATION INTO A FILE. THIS MEANS THAT YOU DO NOT HAVE TO LEARN A PROGRAMMING LANGUAGE OR QUERY LANGUAGE TO USE THE PROGRAM. THERE ARE NO CODING OR SPECIFICATION SHEETS TO FILL OUT. YOU MERELY RESPOND TO PROMPTS (QUESTIONS), AND QUERY/36 USES THE INFORMATION YOU GIVE IT TO GENERATE A REPORT FOR YOU OR ALLOW YOU TO ENTER INFORMATION INTO A FILE. YOU CAN SHOW THE RESULTING REPORT ON A DISPLAY STATION OR ON A PRINTER (EVEN IF THE REPORT IS TOO WIDE TO FIT ON THE DISPLAY, YOU CAN USE COMMAND KEYS TO VIEW THE ENTIRE REPORT). YOU CAN USE A STANDARD FORMAT FOR THE REPORT THAT QUERY/36 PROVIDES, OR YOU CAN MODIFY THE FORMAT TO MEET THE REQUIREMENTS OF YOUR REPORT.

After a query has been defined, you can save it in a library. You can then run the same query many times. A new query can also be built from a saved query by changing a copy of the query and saving it under a different name.

The query functions are available to DW/36. Data from queries can be merged into a document and then printed.

There are two main steps to defining a query. They are:

1. defining the data to be shown, and

2. defining the format of the report.

All of these programs are useful in the office environment individually. As a group, they provide a combination of functions for System/36 that can help make your office more efficient. They can be used individually or together for your office applications.

For example, our SIFAP file was defined using the Interactive Data Definition Utility. DW/36 is then used to generate letters of offer/rejection to SIFAP applicants. QRY/36 and DW/36 are also utilized to generate status reports by officer, by region, etc. A monthly budget report is generated indicating funds budgeted, expended and committed Year to Date.

IMPLEMENTATION PROCESS

- TOP DOWN I.E. THE VOGUE PREVALENT AND ADVOCATED AT PURCHASE/INSTALLATION TWO YEARS AGO WHICH WAS GUARANTEED TO ENSURE A SUCCESSFUL IMPLEMENTATION OF A M/S SYSTEM. ?????

IN OUR CASE TOP DOWN MEANT PLACING COMPUTER TERMINALS ON THE DESKS OF ALL SENIOR MANAGEMENT INCLUDING THE DEPUTY MINISTER, ASSISTANT DEPUTY MINISTERS AND DIRECTORS, I.E. GET THEM INVOLVED AT THE HANDS-ON LEVEL.

VERY QUICKLY WE FOUND THAT WE HAD TO GIVE ALL OF THE ABOVE'S SECRETARIES A COMPUTER TERMINAL, NOT JUST THE SECRETARIES OF THE DM AND THE ADM'S, SINCE THEY WERE THE ONES MAINTAINING CALENDARS AND MAIL LOGS.

SPECIFIC EXAMPLES

- **DW/36**

  Shell documents are used extensively with Query to create numerous standard letters and reports.
  - Inter-office memos
  - Letters of offer
  - Branch monthly reports
  - Financial Fact Sheets
  - Budget vs. Commitment Reports

- **PS/36**

  Documents created using DW/36 can be sent to any other user on the system using the Mail log facilities of PS/36. Acknowledgement of receipt can be requested by the sender.

  Electronic memos can be sent to individuals or groups.

  Mail log - At the senior management level mail logs are extensively used. All hard copy entering and leaving an office is logged and readily traceable using a Find Document option.

  Calendaring - Secretaries to senior management use electronic calendars to keep track of their boss and determine his availability.

  Board room calendars can be booked by reviewing availability.

- QRY/36

QRY/36 IS HEAVILY USED TO QUERY VARIOUS DATA FILES AND PRODUCE CUSTOM REPORTS. REPORT WIDTH IS LIMITED TO 198 CHARACTERS IF PRINTED OUTPUT IS REQUIRED. UP TO FIVE FILES CAN BE QUERIED IF THEY HAVE A COMMON LINK, FOR EG., COMPANY NUMBER; HOWEVER, THE CONNECTION BETWEEN THE FILES IS "AND" NOT "OR", I.E. YOU MUST HAVE A RECORD IN EACH FILE BEING QUERIED OR YOU OBTAIN NO INFORMATION. DW/36 ALLOWS US TO CIRCUMVENT THIS INCONVENIENCE.

CURRENT STATUS/CONCLUSIONS

- PLEASED WITH SYSTEM TO DATE - FITS OUR NEEDS QUITE WELL, I.E.
  - SMALL DEPARTMENT
  - DATA FILES ACCESSIBLE TO A NUMBER OF PEOPLE.
  - DATA FILES ALSO UTILIZED WITH WORD PROCESSING.

- TOP DOWN IMPLEMENTATION - NO QUESTION THAT YOU NEED THE SUPPORT OF SENIOR MANAGEMENT AND I HAVE BEEN VERY FORTUNATE TO HAVE HAD GREAT SUPPORT . OUR APPROACH WAS TO FURTHER INVOLVE SENIOR PEOPLE BY PLACING A TERMINAL ON THEIR DESKS. I'M NOT SURE THAT I'D NECESSARILY VIEW THIS AS A PREREQUISITE TO SUCCESS. THESE PEOPLE ARE REALLY MORE INTERESTED IN WHAT ACTUALLY COMES OUT OF THE COMPUTER (PAPER REPORTS) AND NEED NOT KNOW HOW TO USE A COMPUTER TERMINAL TO GET IN AND QUERY FILES, ETC. ALTHOUGH A FEW DO CREATE THEIR OWN MEMOS, ETC., IT IS MORE THE EXCEPTION THAN THE RULE. FOR INSTANCE, THEY CAN'T CARRY THE ELECTRONIC CALENDAR WITH THEM AND SO THAT IS WHY I THINK THE SYSTEM IS ACTUALLY MORE VALUABLE TO SECRETARIAL STAFF IN THEIR SUPPORT ROLES.

- TRAINING IS VERY IMPORTANT. WE HAVE ONE GIRL WHO DOES NOTHING BUT TRAIN WORD PROCESSING OPERATORS AND DESIGN CUSTOM REPORTS UTILIZING QUERY. MANAGERS MUST ALSO BE KEPT ABREAST OF THE CAPABILITIES OF THE COMPUTER, I.E. THE WHAT NOT THE HOW.

- Security - Password security is active at all times. All files and folders can be secured with access limited to none, view, change or update; i.e. the system has excellent security. Its weakest link is the user who posts his or her USERID and PASSWORD on the keyboard so others are able to access the computer. Programs are currently available to log the terminal off after XXX minutes of inactivity and serious evaluation of this is being considered. Education of personnel on the importance of security is an ongoing exercise.

- Back-up - Currently use 10 - 1 Mb diskettes in a magazine. Nightly procedures are used to back up either Personal Services files or word processing folders while current active files are backed up weekly or more frequently depending upon activity.

- Communications - always interesting when attempting to go from one system to another but with perseverance we shall overcome. Mastering communications with NBIS and the Translation Bureau is a high priority at the current time.

In conclusion there is a tremendous potential of the S/36 yet to be tapped as an integrated automated office system and I certainly look forward to being a part of the process to maximize its potential within Commerce & Technology.

```
                              MAIN                                        WC

                      Main System/36 help menu

Select one of the following:

   1. Display a user menu
   2. Perform general system activities
   3. Use and control printers, diskettes, or tape
   4. Work with files, libraries, or folders
   5. Use programming languages and utilities
   6. Communicate with another system or user
   7. Define the system and its users
   8. Use problem determination and service
   9. Use office products
  10. Sign off the system

Cmd3-Previous menu   Cmd7-End     Cmd12-How to use help     Home-Sign on menu
Ready for option number or command  >

                                                          COPR IBM Corp. 1985
```

```
COMMAND                    Commerce & Technology                          WC
                                  APPLMN

Select one of the following:


 1. C&T Financial Assistance.
 2. Manufacturers' Directory.                Cmd 6 - Use Office Products.
 3. Policy and Procedures Manual.                   (DW/36, PS/36, QRY/36, BGU/36)



 6. Handle Messages.
 7. Change password.

11. Sign off the system.




Ready for option number or command
```

```
                              OFCPROD                                     WC

                         Use office products

Select one of the following:

     1. Use DisplayWrite/36 (DW/36)
     2. Use Personal Services/36
     3. Use the interactive data definition utility (IDDU)
     4. Use Query/36
     5. Work with folders
     6. Exchange PC files and DW/36 documents
     7. Use Business Graphics Utilities/36 (BGU/36)



Cmd3-Previous menu   Cmd5-Main help menu      Cmd7-End      Home-Sign on menu

Ready for option number or command

                                                         COPR IBM Corp. 1987
```

```
                          OFFICE                                    WC

                  Use Personal Services/36

Select one of the following:
                                            Time:  10:59 AM
    1. Work with calendars
    2. Handle mail                       1987   NOVEMBER    1987
    3. Handle messages                    S    M    T    W    T    F    S
    4. Use library services               1    2    3    4    5    6    7
    5. Work with directory                8    9   10   11   12   13   14
    6. Work with user profiles           15   16   17   18   19   20   21
    7. Work with lists                   22   23   24   25   26   27   28
    8. Personal Services/36 administration  29   30
    9. Use office products                       Day of Year: 314

   11. Read Personal Services/36 online information

 Cmd3-Previous menu   Cmd5-Main help menu    Cmd7-End    Home-Sign on menu

 Ready for option number or command

                                                 COPR IBM Corp. 1987
```

```
                               CALENDAR                                      WC
                         Work with calendars
Select one of the following:

   1. View or maintain calendars
   2. Print or delete calendar items
   3. Create a calendar
   4. Change manager or description of a calendar
   5. Delete a calendar



  11. Read Personal Services/36 online information

Cmd3-Previous menu   Cmd5-Main help menu      Cmd7-End       Home-Sign on menu
Ready for option number or command

                                                             COPR IBM Corp. 1987
```

```
Calendar   CALMAR           1987  WEEKLY CALENDAR            08:15A - 04:45P
 MON      11/09 : TUE      11/10 : WED      11/11 : THU      11/12 : FRI      11/13
  8:15A________ :  8:15A________ :  8:15A      03 :  8:15A________ :  8:15A________
_______________ :  9:00A      02 : Remembrance    : _______________ :  9:00A      04
  9:15A      01 : Mtg Siskin re  :          Day   : _______________ : Mtg Strg Comm
 Bdgt Mtg       : Srv Inv Stdy   :                : _______________ : Sm Bus stdy
 Rm 512         : ACOA office    :                : 10:15A_________ : Rm 571
                :                :                : _______________ :
                :                :                : _______________ :
         12:00P :         12:00P :                : _______________ :         12:00P
 12:15P________ : 12:15P________ :                : 12:15P_________ : 12:15P________
_______________ : _______________ :               : _______________ : _______________
_______________ : _______________ :               : _______________ : _______________
_______________ : _______________ :               : _______________ : _______________
  2:15P________ :  2:15P________ :                :  2:15P_________ :  2:15P________
_______________ : _______________ :               : _______________ : _______________
_______________ : _______________ :               : _______________ : _______________
_______________ : _______________ :               : _______________ : _______________
  4:15P________ :  4:15P________ :          4:45P :  4:15P_________ :  4:15P________
Type one choice                 (Put cursor here, press Help for Cmd keys)
 Roll. . . .                    Time increments, days, calendars, or a date
 Add item. .                    1=Appointment  2=Reminder  3=Program  4=Meeting
 Change item                    01-04, or *=Last referenced item
```

```
                                MAIL                                  WC

                            Handle mail

Select one of the following:

   1. Open mail
   2. Send a document
   3. Review outgoing mail
   4. Create hard-copy reference
   5. Review action items
   6. Review mail log
   7. Create or delete a mail log
   8. Select another mail log
   9. Review mail status
  10. Send a note
  11. Read Personal Services/36 online information

md3-Previous menu   Cmd5-Main help menu      Cmd7-End     Home-Sign on menu

Ready for option number or command

                                                     COPR IBM Corp. 1987
```

```
User ID     GSWED                  REVIEW MAIL LOG                         Top

Type an option beside an entry below, press Enter.

Options:  1=View
          3=Forward                              4=Delete mail log entry
          5=View or change details               6=Print
          7=Delete from mail log                 8=File in text folder
          9=Print with options                  10=Reply
       TO OR                                                              SENT OR
OPTION FROM     DESCRIPTION                     STATUS         TYPE      RECEIVED
       CANADIAN The Cap Corporate Members Conf  HARD-COPY      OTHER     87/05/06
       ARMSTRON Digital Products Limited - SIF  HARD-COPY      OTHER     87/11/10
       HAMILTON Travel Request - A. Cormier -   HARD-COPY      OTHER     87/11/10
       LEROUX C The Need for Equity Capital in  HARD-COPY      OTHER     87/11/10
       ARMSTRON Pisca Seafood Corp. Request fo  HARD-COPY      OTHER     87/11/09
       MSMD     *** MESSAGE ONLY ***///         Opened         OTHER     87/11/09
       GOODWIN  MTC Board of Directors  Memo r  HARD-COPY      OTHER     87/11/09
       GOODWIN  Seawater System Relocation - S  HARD-COPY      OTHER     87/11/09
       HAMILTON National Bank re: Paulin Fibre  HARD-COPY      OTHER     87/11/09

Cmd1=Find document     Cmd3=Go back
Cmd6=Print list        Cmd7=Quit             Cmd8=Reset          Roll=Page
**You had no mail to be received                                       6150
```

```
                                         FIND DOCUMENT
User ID      GSWED


Choose criteria to select documents; press Enter.

Sent or received         87/09/11  To  87/11/10   Enter date range

Document name . . . . .
 AND
Document class . . . . .                    OR
 AND
Author . . . . . . . . .
 AND
Words in subject . . . .                OR                   OR
 AND
Sender/addressee                   OR            OR



Cmd3=Go back         Cmd4=Change AND to OR between lines
Cmd5=Change OR to AND between words in subject
Cmd7=Quit            Cmd8=Redisplay
```

FINANCIAL FACT SHEET

NUMBER:
NAME:

MANAGER:
PHONE:

Loans & Guarantees

Date In Place	O.I.C.	Loan Type	Authorized Amount	Maturity Date	Outstanding Amounts Principal	Outstanding Amounts Interest	Outcome
85/04	84-XXXX	G /M /M(M)	100,000	87/12	100,000	0	C
	86-XXXX	L /P /M(M)	60,000	91/11/30	60,000	0	C
********	*******	***************	**************	********	**************	**************	**
********	*******	***************	**************	********	**************	**************	**
********	*******	***************	**************	********	**************	**************	**

Other Grants

YEAR	DIVISION	TYPE OF ASSISTANCE	AMOUNT
8384	Industry Serv.	Product Testing	747.50
8384	Industry Serv.	Development Of Post Processor	1,495.00
8485	Industry Serv.	Industry Support	1,500.00
8485	Industry Serv.	Industry Support	1,475.00
8485	Industry Serv.	Marketing Assistance	9,000.00
8586	Industry Serv.	Mission	2,160.00

FINAL TOTALS
TOTAL 16,377.50

Small Industry Financial Assistance Program

NBIDB YEAR	GRANT TYPE	Estimated Grant	Actual Grant	STATUS (C=Complete)
8384		71,000.00	75,000.00	C

FINAL TOTALS
TOTAL 71,000.00 75,000.00

Sub-Agreement

APPROVED DATE	STATUS	PROVINCIAL SHARE
(Industrial Development)		
87/02/19	Accepted	7,125.00

FINAL TOTALS
TOTAL 7,125.00

(Industrial Innovation)

********	*********	*****************

As time goes by, the technical mysteries of computers may become clear to you. Then again, they may not – but you don't have to know how the refrigerator works to enjoy a cold beer!

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

OFFICE AUTOMATION EXPERIENCES

presented by

STUART OULTON

ISD CO-ORDINATORS CONFERENCE
NOVEMEBR 18, 1987

1. INTRODUCTION

- At start, question what would be most usefull -1. specific challanges and solutions, or 2, overall lessons/experiences that would be usefull to others contemplating similar activity.
- However, to be meaningful, need just a little background to frame in how we "arrived" at where we are now.

WHAT

- Began promgramming MICOM word-processors as a micro computer in 1981.
  - retired last such system in 1986.
  - IBM PC was first introduced in August 1981.
- Installed an HP3000 in April 1982
  - converted exist UNIVAC Vessel Inspection system
  - transferred some work from UNB
- Original system was 256K memory, 2 terminals, 1 printer and a 64 meg hard disc - a micro by todays standards.
  - all of this hardware is still operating in daily use.

THE EVOLUTION OF OFFICE AUTOMATION

- Originally planned to begin working to-wards office automation, as opposed to 'computerization', once the basic DP projects were out of the way.

- The basic DP projects never got out of the way! In fact, as some were finished, enhancements requests began, in addition to totally new projects.

- Branch directors had little time or patience for "toys". They were much to busy trying to get up-to-date information related to their program responsiblities (draining the swamp).

- Computerization continued to grow, equipment continued to be acquired, but there were never sufficient resources (people or systems). The dataswitch was added to allow more terminals to be connected that there were ports on the computer (also planned to allow connectingto a second computer).

- What's the use of having a telephone, if the person you are trying to call doesn't have one?

CURRENT ENVIRONMENT

- A "critical mass" of central hardware, and distributed microcomputers/terminals has been established.
- Communications from any work station to any government resource is available, as required.
- DP continues to function on smaller HP3000's, with all OA occuring on the largest cpu. Special workstations are availbale for cpu intensive applications such as DTP or indepth SPSS analysis projects. DTP includes things like this years annual report.
- Officially began a department-wide office automation project in September of this year (HP3000 series 70 installed in June).
- project includes terminals/micros on DM, ADM and directors desks, in addition to those at secretarial and clerical stations.
- Automation includes preparation, internal distribution, and eventual filing of documents, all done electronically.
- The most recent ministerial briefing was prepared at the brnach level, and moved throughout the orginization (ADM and DM etc) via electronic communication.
- The biggest problem that was experienced was determining when senders should keep copies, and when to only forward a modified document - i.e. administrative functions, not technical or user acceptance issues.
- Users are extremely enthusiastic, and are pressing to proceed more rapidly than we had planned. (training capacity, equipment availability etc).

LESSONS LEARNED

- Basic management related DP issues are of first importance to Director level managers.

- DP projects will never be "finished".

- OA requires a great deal of computer hardware, and is difficult to cost-justify if used solely for OA. DP type project costs are more easily measured and accepted - hence, redirecting existing DP expenditures to acquire hardware that can also be used for OA is simpler to justify.

- End-users need support (immediately) as they begin to explore the functionality of the systems, but will accept automation if they are not threatened by it, and can see how it will benifit them personally.

- Vendors must be bullied, threatened, and blackmailed into adapting their offerings as needs arise

- Those who administer the systems, must not only undertake the above, but where they do not accomplish the objective, be creative in adapting what is available to meet the real needs of the users.

- Multiple simaltaneous functionality is required as users become more complex. Leaving one program to check something, then returning is too tedious (also called multiple sessions).

- All users who a given individual must communicate with, need to be part of the OA netowrk for it to be effective.

- Follow-up and adjustments/evaluations within a department are needed to enhance the effectiveness of the techinuques. No hard and fast rules, simply an agreement of everyone how to orgainize/coordinate thier activities.

- Users outside of the headquarters area, throughout the city and/or province, benifit most from electronic mail.

- When moving to electronic filing, as was our experience, the move to central filing is more significant that the move to OA.

- Departmetnal level OA requires a mechanism to connect 1,2 even 300 users to-gether for document/message exchange.

- Non computer hackers have little interest in how something is done. They care only that it works, is accurate and timely, that they can afford it, and that it doesn't disrupt their work routine and easily enough understood.

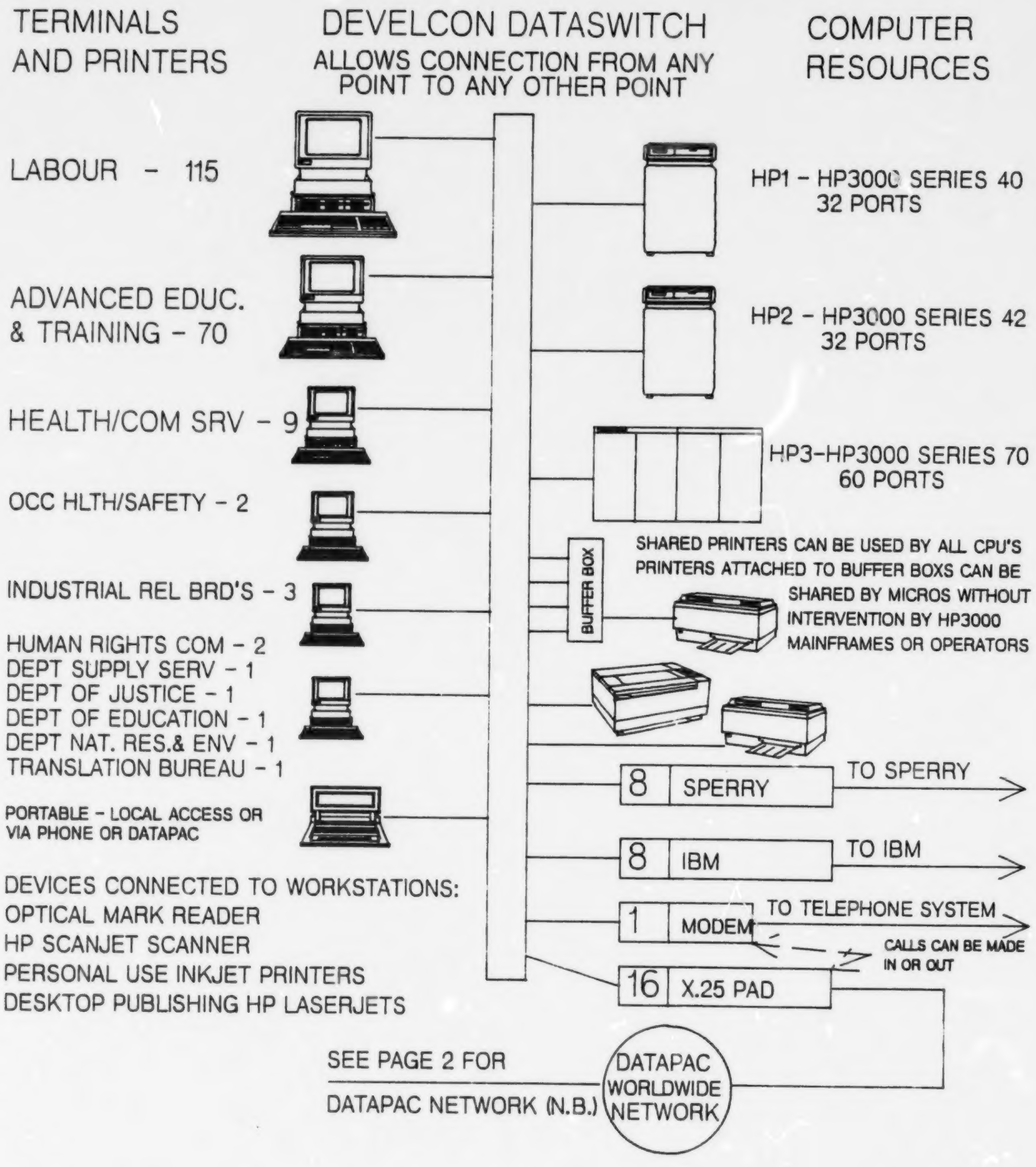
THE FUTURE

- workgroup LANS that link into larger division "MINI'S-servers' that link into larger departmental HOST'S that links into "corporate" mainframe(s), without the user knowing where the work is done or the data stored.

- X.400 standards will provide for electronic mail systems what X.25 has provided for terminal connections, if, for example, the IBM mainframe is not used as the "center" of the corporate universe for mail sorting.

- Windows (or other graphic interface) will completely replace the current character/command based systems, although not overnight. Total image based information exchange will become a reality as cpu/communication hardware reach the needed capacity levels.

DEPARTMENT OF LABOUR
SYSTEM NETWORK - 15 NOVEMEBR 1987



ALLOWS CONNECTION FROM ANY POINT TO ANY OTHER POINT

SHARED PRINTERS CAN BE USED BY ALL CPU'S PRINTERS ATTACHED TO BUFFER BOXS CAN BE SHARED BY MICROS WITHOUT INTERVENTION BY HP3000 MAINFRAMES OR OPERATORS

PORTABLE - LOCAL ACCESS OR VIA PHONE OR DATAPAC

DEVICES CONNECTED TO WORKSTATIONS:
OPTICAL MARK READER
HP SCANJET SCANNER
PERSONAL USE INKJET PRINTERS
DESKTOP PUBLISHING HP LASERJETS

SEE PAGE 2 FOR DATAPAC NETWORK (N.B.)

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

OFFICE AUTOMATION EXPERIENCES

presented by

ARNIE WILKINS

OFFICE AUTOMATION ON A SPECIALIZED COMPUTER

I will attempt, in a mercifully brief fashion, to explain:

- What is an Office Automation Speciality Computer".
- Why we chose one.

But more importantly:

- How it affected our thinking about OA.
- Where are we now.
- Our best guess at where we're going from here.

To do this, I have to bore you for a short period of time with a bit of history on the Wang computer line, since Wang were the only producer of this type of OA system.

Wang became famous for the production of a product line called the OIS (Office Information System).

- A shared access WP system
- Ranged in size from aprox. 4 devices to 32 devices.
- Features: -WP
  - -List Processing
  - -"Macro" like facility called Glossary

If what you do is WP, these were fast, easy to use, easy to administer, and had one of the best WP editors of the day.

Wang became known as a WP computer company and are still trying to shake that image.

PROBLEM: The OIS was fine for support staff but not for professionals and executives who did not want to appear to be "typists".

SOLUTION: Wang "ALLIANCE" - The OA Speciality Computer. This was the product chosen for the Board of Management, Cabinet Secretariat, Premier's Office, Executive Council, and certain branches of the Department of Finance.

What was the Alliance?

- Their largest OIS system with the following additions to the software:
  - An even better WP editor
  - A database package.
  - A time management package:
    - -Electronic mail & messaging.
    - -Calandering
  - A business graphics package.
  - A spreadsheet (a scaled down version of Multiplan)

Does this type of computer work?.....It depends!

- WP	pound for pound of processor, it will outperform a traditional minicomputer. This is due to the use of intelligent workstations and very high speed transmission lines.
- Mail	Transfer of messages, documents etc. between users and locations works well, as does calendar function.
Database	Easy to use and quite functional for basic flat file applications.
Graphics	Quite powerful, difficult to learn, but bring a lunch to nibble on while you're waiting for the printer to process the output.
Multiplan	Will kill the machine. We didn't use it in this environment.

WHY DID WE CHOOSE THIS PARTICULAR PRODUCT?

- The primary requirement for the departments was shared access word processing.

  Workstations were targeted for the support staff. This product had the tools required by that group.

  The equipment was comparatively easy to administer. (no requirement for technicians, programmers, etc.)

WHAT WORKED!

- Our first application, the Board of Management Minutes System, resulted in a saving of aprox. $27,000 annually. This was produced using a combination of the database and glossary functions.
- Incredible savings in staff time - more output per individual.
- The ability to share resources. Staff from a number of locations could simultaneously work on one report or project, forward their portion to a control point for merging, send the completed document to the translation bureau, receive the translated copy and forward the entire project to Queens Printer without anyone having to leave their desk.
- People began realizing the benefits of OA, and thinking began to change about how we do our day to day work.

PROBLEM: Demand for system space from the support staff snowballed.

SOLUTION: We purchased a second Alliance and linked the two of them.

PROBLEM: - The second system (32 more devices) filled in three months. Professionals wanted more; spreadsheets, fast & easy graphics, more powerful database software...."just like on my PC"......BUT they still wanted to be part of the network.

SOLUTION: The best of both worlds, a PC with a Wang emulation board. One for every "PC Hacker" professional.

PROBLEM: - A pc on every desk is like a filing cabinet in every office. Users began developing applications, SOME OF which were "departmental" information. Some of these applications were being duplicated by other users.

- Managers wanted spreadsheets and databases which could be controlled from a central point but accessed by many from their own workstations.
- Users wanted to download information from the departmental system and manipulate it on their PC's.
- Users wanted to be able to access the departmental system from remote locations.

SOLUTION: We bought a Wang VS series Minicomputer.

WHERE ARE WE NOW?

- We have our two Alliance systems networked to our VS Mini.
- We will continue to keep a large percentage of the staff on the Alliance systems as WP is still a very large part of our automation requirement.
- Our senior managers and professionals have all been trained in the use of electronic mail and calendaring and an increasing number are using it on a regular basis.

- We are using more and more PC's as workstations, particularly for the professionals.
  - Used to download data from the mini to provide faster manipulation.
  - Can be used to work from remote locations (home, hotel room, remote office)
  - Users can use their favourite WP or spreadsheet package and convert later for upload to the mini.
  - The off-line manipulation of data and production of user specific WP documents relieves the central processor.

CONCLUSION:

The purchase of a "OA Speciality Computer" provided a rather painless entry into the world of office automation for our group of central agency departments with a rather limited amount of expertise in that area.

The experience gained through the use of this system has brought the Board of Management staff "up to speed" in this area and prepared them for the PC/Mini/Mainframe environment in which we currently operate

In spite of all our problems, errors and setbacks, we have been comparatively successful in the area of office automation This is a result of:

Forward thinking and support on the part of our senior management team (the most essential ingredient);

A great measure of support and cooperation from ISD in the technical and practical areas of running a departmental system;

Office automation was our goal; DP is what we're working on now.

FINALLY:

I hope this "History of OA in the central Agencies" has helped to point out how a speciality computer system like our's fits into the operation of a department, and I hope the successes and failures encountered by us may be of some benefit to any of the departments who are starting or thinking of starting into the area of OA in a serious fashion.

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

END-USER COMPUTING AS WE SEE IT

presented by

JERRIE FOWLER

With Planning and control, you have distributed processing; without it, you may have distributed incompetence.

WILLIAM R. SYNOTT
First National Bank of Boston

Four Rules of Distributed Processing

1. A complete up-to-date Data Dictionary must be maintained for all data elements in the system.

2. All transactions should carry status tags.

3. One person should be responsible for integrity of each data element.

4. One person must have ultimate responsibility for the status of the system at each site.

Datamation, May 15, 1987

"The key to managing the information resource is the ability to mobilize information so that it is available to whomever needs it at the time and place ***needed in the form needed."***

Joseph Ferreira
Management Consultant

Information has evolved from an asset (thing of value) to a resource (that on which one depends for support).

Software for Effective End-User Computing Should Include:

- Relational Data Base Software
- Full Programmer Productivity Tools
- Graphics
- Word Processing
- Electronic Mail & Messaging
- Spreadsheets
- Desk Top Publishing
- Application Builder

A Good Relational Data Base should have:

- An active Data Dictionary
- Capability to select multi physical files
- A good 4th GL interface
- Good query
- End-user productivity tools
- Referential integrity

Three Types of Workstations

- Basic Terminal
- Desktop Computer
- Enhanced Telephone

Current ISD Activities Working Towards Integrated End-User Computing:

- Development of a province wide open communication network
- Selection of IBM relational data base software
- Selection of IBM 4th GL software
- Utilization of Unisys relational data base software
- Changes in client service team philosophy
- Improved user access to user systems

Future Activities Towards Integrated End-User Computing:

- Development of corporate data bases
- Development of province-wide E. Mail system
- Adoption of technology strategy
- Development of policies & procedures consistent with policy
- More integrated systems
- Creation of 4th Generation data
- Software standardization
- Rationalization of departmental technology

Obstacles Limiting Progress:

- Funding
- Resources
- Absence of inter-departmental strategic contacts
- Social implications - internal and external
- Focus on tactical/operational issues
- Breaucratic culture/personal interest
- Information Systems organizations
- Senior management

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

DESKTOP PUBLISHING MADE SIMPLE

presented by

BILL HALL

DESKTOP PUBLISHING MADE SIMPLE

BILL HALL
INFORMATION SYSTEMS DIVISION
DEPARTMENT OF SUPPLY & SERVICES

November 18, 1987

Desktop Publishing Presentation

I. INTRODUCTION

A. Where am I coming from

I have been working with the Macintosh since August 1986 and with the Laserwriter since February 1987 in an experimental way. My intention has been to make some form of Desktop Publishing capability available to our division-since we compete with private sector frims for Information Systems business we should appear professional just as they do.

B. Desktop publishing defined

A desktop publishing system is generally composed off-the-shelf products based on microcomputer technology. The computer itself is usually a general-purpose one which can be used for other applications, although it may be largely dedicated to the publishing task. A desktop system is usually a stand-alone one although it may be part of a network for gathering input or may share a laser printer with other systems.

By the way we're not really talking about publishing here. The output from our printer has to be taken to a printing service and assembled into masters which will be somehow copied (perhaps reduced or enlarged etc...) before actual printing takes place. If we are considering a press run of any size, say a hundred or more copies than two sided coping and its attendant problems such as matching pages so that the final product when bound does have pages in numerical order is critical. Rather than Desktop Publishing the correct phrase should probably be Desktop Page Layout. At least at the present state of development of this software.

C. Some basic facts

*by 1990 Datapro[1] reports that in the USA, businesses will be generating more than four trillion (4,000 billion) pages of printed material each year.

---

[1] From Datapro Research Corporation Reports on Electronic Publishing Systems-a copy of this series of reports is in ISD's library.

*non-commercial publishing activities (eg. in-house) in the US spend about $1.8 billion annually (including $95 million on equipment alone.)

*expenditures for electronic publishing technology will account for 30 to 40 percent of the growth in the entire computer industry through 1989.

*the promise of electronic publishing is that it can reduce typeset document production expenses by a whopping 25 to 50 percent.

II. THE PHYSICAL COMPONENTS OF DTP

A. HARDWARE

1. Input Devices
   *Keyboard
   *Mouse
   *Scanners (OCR and image)
   *Disk (file transfer)
   *Cameras (still and video)

2. Processors
   *micros
   *minis (general purpose and dedicated)
   *mainframes

3. Output media
   *Hardcopy
    **Printers
      Daisy Wheel
      Print Chain
      Dot-Matrix
      Laser
    **Typesetting
   *Electronic
     cd-rom
     videotext
     on-line databases

4. Other Factors
    - *Networks
        - Type
            - LAN
            - switch
            - dedicated
        - Medium
            - co-axial
            - twisted pair
            - optical fiber
    - *Media Conversion
        - by conversion software (e.g. Keyword)
        - by communication/translation

B. SOFTWARE

1. Word processing (also outline processors)

2. Graphics and "Art" (also clip art libraries)

3. Spreadsheets

4. Charting

5 Page Composition Programs

(these often include Word Processing, Spelling, Hyphenation and Styling as well as some Graphics capabilities)

III. ISSUES & CONCERNS

A. Cost justifications

1. hard dollar savings

*reduction of equipment expense

*reduction of labour expense

--it is generally agreed that a writer's output can be increased 15 to 20 percent simply by providing computer-based workstations at which to originate material

--similar, if not greater savings are obtained by supporting a graphic artist's page layout tasks with a computer-based workstation

*elimination of service bureau expense

*reduction of supplies expense

2. strategic benefits

*add value to publications

*improve appearance of publications

*enhance corporate image

*improve quality control

*improve information security

*improve ability to develop new publications

B. Relationship between OA and DTP

This whole presentation is about communication. Whether you work for government of for yourself you still have to communicate on paper to those you want to sell your product to and to those from whom you get your raw materials.

Office Automation deals with the use of Information Technology to facilitate productivity in the modern office. Examples might include word processing, spreadsheets, graphics and the like. Their basic goal is to aid the creator in the development of his or her theme and the necessary material to support their argument or action.

Desktop publishing is the next step in this process-the transformation of the theme into a message easily read and understood by the perceived audience so that they take some action which the author believes necessary to accomplish his or her goal-some kind of change in others.

C. Capabilities of Staff Who Use DTP

Typically desktop publishing is assigned, taken on or otherwise acquired by people who have no prior training in the field but some knowledge of the topic area to which this new equipment is to be applied and usually something about the equipment being used. This usually means that while subject content will be accurate and timely its presentation might not be as clear as possible. I cannot in all conscience stand here and pretend to tell you the principles of good page and document layout, but I have read and observed that mixing too many fonts and typesizes, inserting too many graphics and so forth makes the resulting page harder to read than good old Courier font on the IBM selectric typewriter. There are courses and reference materials as well as graphic artists and reference manuals on style which can be used for help.

"Unless the organization employs a designer or technical editor knowledgeable of design criteria, the onus for presentation rests entirely with the report writer.[2]

D. Copyright concerns

My concern here is simply that artwork and text which are the creative property of their authors will be copied by people new to the publishing business innocently enough but in potential violation of the law.

With the tools presently available such as scanners and document conversion between formats it is relatively easy to capture the work of another and incorporate it into one's own. Not necesarily for profit but merely to share knowledge and ideas. Regardless of the intention, to scan another's drawing and incorporate it into a presentation we are making constitutes theft if we do so without permission.

The rule of thumb here is-if in doubt, ask permission!

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[2] Ron S. Blicq Writing Reports to Get Results; Guidelines For The Computer Age IEEE Press, New York, 1987 (Copy in ISD Library)

E. The Bottom Line

All this technology potentially increases productivity and creativity. Increasing productivity means doing more with equal or less dollars. Increasing creativity requires more time and time means money. There is a lot of work involved in producing a quality product that you can be proud of. This new software will not save the creator time-it will require more time from him or her but in turn it will give them much more control over the final product.

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

TRANSFERRING DOCUMENTS

presented by

PAULA WOOD and J. S. MAILLET

INFORMATION SYSTEMS CLIENT CONFERENCE

NOVEMBER 1987

TRANSFERRING DOCUMENTS

by PAULA WOOD

and J. S. MAILLET

Paula Wood

We have a new system now where the input is very, very fast. With our old system, people would bring in double spaced typed copy, give it to us, then we would retype it, and you know some people make mistakes and they'd have to go back and have to reproof the whole thing. Now, if your disk can be communicated to us, your job can be turned around within a couple of days whereas the old way might have taken a couple of weeks. If it was during the house sessions it may even have taken a month or two.

A lot of our work is for the Department of Justice and the Legislature. We do all of the acts and regulations, and most departmental annual reports are given to us to print. We have found that this new system is very fast, there is no time spent in rekeying and things like that. If we receive proofread copy and we sometimes don't, but if we did receive the final proofwritten copies, the only thing you would have to check for would be italics, indents. There's no need of reading paragraphs word for word. With this new system we're also able to take on larger jobs now. One of the ones we've taken on recently is journal updates for the house. Their type-set copy would have ten volumes for the 1986 sessions, so we're hoping to do great things with that in a short amount of time.

We do receive directly from the French Translation, Justice, Transportation and Labour. All of these have modems which can transmit to us. If anybody has a modem that does transmit, we can, in all likelihood receive from any department. We can receive both asynchronous or bysynchronous. In bysynchronous mode the communication system receives at speeds of 300 words per minute and up automatically. There is no set speed. We can restructure our system so that it's very flexible.

Now for the people that don't have a system, you are not lost because in Supply and Services, we have the Access Centre, and they are capable of taking your disks and converting them to a usable format that can be transferred to us. There is a charge for this, this isn't done free.

In regards to the disk, you might have a page on the disk or a full disk with lots of documents. The conversion is $35.00 per disk and the transmission of the data is $25.00 a half hour. If you have a Wang system, but no modem to send on, you can take that to the Access centre and have them send your disk without the conversion. Not all disks can be converted at the Access Centre. There are fourteen different types of software pairings that they can use and they have told me that they do have some they can get, but it is quite a bit of money to have it installed to use so you can send a disk to it. If you're not sure whether your computer has a modem to communicate with us or if the Access Centre can, and I'm doing this on my own, and I've had no authorization, but I'm sure that if you phoned the Access Centre they would tell you whether your disk could be converted so that it would be usable for us.

I don't know if you're familiar with what we do at the Queen's printer, but the big thing is, all the departments come and say we need this yesterday, or somebody's waiting for it tomorrow, and this is what we're trying to get into, very, very fast publications. We have nothing to do with word processing. Everybody thinks that we're word processors, but as far as word processing we do strictly type setting. I am not familiar myself with any word processing. If you want to communicate it is no problem phoning up and saying, "can you set up a test" and somebody's always available to help you along, or hopefully, you know what you're doing at your end, because most times we don't know. We have an idea what it is to get a job ready to send through and we're just there to make life easier hopefully for most of the departments to get out good quality work in the shortest amount of time.

J. S. Maillet

The Translation Bureau has one official request form for sending documents for translation and four ways of sending those requests. The first is to bring the request in person to the Bureau, the second is the internal mail system, the third is via telecopiers and the fourth is through Wang telecommunications.

The Bureau has had telecopiers for at least six or seven years and this year we've acquired two fourth generation machines: a BIT V and a Xerox 710. Those machines are fully compatible with any other fax machines even those of the Xerox first generation.

Those telecopiers are extremely busy, that's why we have two of them. By phoning the Bureau you can get the telephone number of one of these machines on a twenty-four hours a day, so that you can send at any time during the day or night. We try to ask the clients to limit the transmission of those documents on telecopiers to around four to five pages. Obviously the purpose of that equipment is for emergencies, press releases, or something that has to go back out fast. There's no point in sending a ten, fifteen, or twenty page document on the telecopier. Translators don't translate that fast yet. So, for large documents that need to be started right away, usually I recommend that you send the first four or five pages, so we can get the translators working on it immediately and the rest by internal mail or bring it in to us personnaly.

Lets talk about the telecommunications. At least four years ago the translation bureau was faced with a very important decision to make. We had in the Bureau what I call a showroom, Micoms, IBM Memorywriter and all kinds of machines. We also had operators, and I can remember one sitting on a chair as she would pivot from one machine to the next depending on what the client had asked to type the reqest on.

The volume justified that we had to go to a shared resource in word processing, so therefore we at that point in time looked at all systems available and decided on the WANG OIS system. The telecommunication facility on that equipment is extremely limited. We are still using the 2780/3780 protocol. We have two modems that you can dial in. One is an automatic dial in system and the other is used to send back to the clients. It is often the case, where we have to use both at the same time because the lines are too busy. It is extremely limited in the sense that in the beginning we could only send and receive from Wang equipment. Since 100% of our material is from departments in the Fredericton area, (we don't receive any materials from regional offices unless it goes through the department in Fredericton), it wasn't thought to be of great importance at the time, although we could foresee at that telecommunication would become extremely important. The volume has grown to the present level of eight to nine million words per year which represents 45-50 thousand pages and as years went on, more and more departments decided to inquire about buying equipment. As we stand today, more than half of the departments and agencies that we are responsible for providing translation have Wang equipment. The volume of work coming in from those departments and agencies represents 65% of our total volume, so we still have a 35% problem which is partly solved by the Access Centre. A conversion either from Micom, AES, WordPerfect, to Wang can be reversed and a WANG diskette, (3" or 5 1/4") can be sent to the Access Centre for conversion back to the format that you need. However, this conversion has a very limited level of success, mainly because there is no standard in text formatting. No two operators will probably use exactly the same sets for margins, some use tabs and some use indents and some use both formats within the same documents and on the same page. They are converted differently obviously and when we go back to the Wang system sometimes it is a lot easier for us to erase the whole thing and rekey the entire document than to fix it up on the Wang system. So this is one problem that we are addressing individually by asking operators to standardize on the format of their documents. For clients without systems or incompatible one at this point in time, we can transmit their documents to the Queen's Printer and forward a hard copy back to them.

I have been told recently that brighter days are ahead, and I'm sort of looking forward to the next year to have a total solution.

There's on the market a utility which allows direct conversion of most word processing packages available on micros, (direct conversion, or on-line conversion) to the Wang VS. The Bureau has been overloading its own system for about a year now. We have no ports available, where half of the translators are using word processing to do their translation.

Storage is a monstrous problem to the point that we have to delete every document that has thirty pages or less, because we just don't have any more space for them on the hard disks, and we have a cabinet full of diskettes. Whenever we send a document back, we just keep our fingers crossed that it doesn't come back for updates. We have to upgrade our system and the VS has been chosen as a logical step. We can either revamp the whole system (i.e.: get rid of the OIS system) and stick only to the VS or we can have a configuration for both, but we do need a mini-computer system which will allow us to combine word processing and other applications which have developed over the years in the Bureau like in most department.

Unfortunately, what I've talked about is on-line conversion to the VS through the Wang office, and it only works in English. The French character set has been forgotten once more.

In January the new version of DOS 3.3 will most likely be available for other non-IBM micros. DOS 3.3 has, by the way, its own three character sets. An international character set, a French Canadian set and a standard one. We're going to have to select one of these character sets and ask that the utility be rewritten to allow the correct conversion or on-line conversion to Wang VS which would simplify things enormously. I would think from what I heard in statements made this morning that this would solve everybody's problem by being able to send documents to and from the Bureau.

In sending documents to the Bureau, I would like to stress one thing: that our first and foremost mandate is to do translation, and we are not a wordprocessing shop. It is not intended at this point in time to get involved in desktop publishing. The service we are good at delivering is translation. We will try to do our utmost to satisfy our clients provided the same format of the document that has been sent to us, in order to save them as much time as possible. If you can combine both, great, but I don't think that the Translation Bureau should be required to provide exactly what the document or do updates of documents strictly as the latest change in the document occurs, and that is basically talking about a wordprocessing shop.

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

DEMONSTRATIONS

organized by

MIKE HENNESSEY

INTRODUCTION
to the
DEMONSTRATIONS

Clients Conference - Fall 1987

DTP - VENTURA

by DANNY KEIZER

- runs on IBM PC/XT, AT, PS/2 and compatibles
- page makeup
  - ASCII text
  - Word Processing documents
  - images
  - drawings
  - graphs
- WP support
  - Multimate
  - Wordstar
  - Microsoft Word
  - Xywrite
  - WordPerfect
  - Windows Write
  - Displaywrite III,IV
  - Xerox Writer
- Paint and Scanning support
  - GEM
  - Halo DPE
  - PC Paintbrush
  - MAC Paint
- Graphics and Drawing support
  - GEM
  - Lotus.PIC
  - Mentor Gr
  - CGM
  - Hewlett Packard
  - CGA, EGA, Hercules
  - AutoCAD.SLD
  - Videoshow
  - MacPICT
  - Postscript
- Printers
  - Dot matrix and laser
- sample setup
  - XT compatible (under $8,000)
  - Hercules compatible
  - 2MB HP LaserJet Printer
- documents up to 500k
- demo setup
  - AT compatible
  - HP series II laser printer
  - HP OCR scanner

DTP - PAGEMAKER

by ANDREW WHITE

- runs on IBM XT, AT, PS/2 and compatibles
- from Aldus Corp converted from MacIntosh to IBM
- Page makeup
  - ASCII text
  - Word Processing documents
  - images
  - drawings
  - graphs
- WP support
  - most popular packages including Lotus 123 and others
- Paint and Scanning support
  - GEM
  - Halo DPE
  - PC Paintbrush
  - MAC Paint
- Graphics and Drawing support
  - GEM
  - Lotus.PIC
  - HP Graphics
  - CGM
  - Hewlett Packard
  - CGA, EGA, Hercules
  - AutoCAD.SLD
  - Microsoft Windows
  - MacPICT
  - HPPCL
- Printers
  - Dot matrix and laser
- Demo setup
  - HP Vectra , 20 Meg disk, 640k RAM
  - coloured display using EGA adapter
  - HP Laserjet II printer
  - HP Scanjet scanner

DTP - MACINTOSH
by LUIS NADEAU

- page composition using READY SET GO !
- word processor input from Microsoft Word
- graphics and drawing
    - Illustrator from Adobe
    - Microsoft Excel
    - sample 'clip art' library
- demo equipment
    - Macintosh Plus microcomputer
    - Apple 20 Meg hard disk
    - Laserwriter Plus printer

GRAMMATIK II

by KIM LEBLANC

- an electronic proofreader
- typographical errors
    - punctuation
    - capitals
    - quotes, parentheses
- grammar
    - overused expressions
    - passive voice
    - misused words
    - pretentious words
- error marking
    - marks and suggests correction
    - see errors on screen
    - error file with suggestions
- dictionaries
    - default
    - gender
    - user created
- statistical reports
    - sentence length
    - readability
    - passive voice
    - prepositions
- input
    - ASCII files no control codes
    - process 1 page/3 secs with AT
- requirements
    - IBM compatible microcomputer
    - 150k memory

TRAVELLING WORKSTATION

by ARNIE WILKINS

- office automation concept
- asynchronous communications
- portable PC to departmental mini for :
  - accessing departmental databases
  - two way document exchange
  - automatic reformatting via menu
  - scheduling resources
- demo equipment and hardware
  - WANG VS65 minicomputer
  - WANG VSCOM communications software
  - COMPAQ Portable 2 microcomputer

FACSIMILE TRANSFER

- no demo available
- fax is a way to send pictures electronically
- like a photocopier plus electronic mail

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

DAY TWO

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

An informal look at
THE INFORMATION SYSTEM ENVIRONMENT

presented by

BOB ELLIS

INFORMATION SYSTEMS CLIENT CONFERENCE
NOVEMBER 18/19, 1987

THE INFORMATION SYSTEMS ENVIRONMENT

By Bob Ellis

I have been invited to address the subject of the Information Systems Environment, and the content of that topic is in your handout material.

I would like to clarify that description a bit: I do not propose to address the mainframes "Environment" as offered by the Information Systems Division, but from the perspective of the environment that we all work in, the factors which influence our environment, and what we in ISD are doing or planning or proposing in order to provide a positive contribution to that environment.

I think it is worthwhile to talk about the environment in the context of what it is, and how it affects all of us, because we are, in effect, all in the same business, and simply put: "That is the business of acquiring and applying computer driven technology to support the various business(es) of Government".

From the perspective of the Information Systems Division, we are one of many sources of supply for the services and facilities of I. S. Technology; You on the other hand, are a source of demand for us, further supply for your own departments. Quite often you can and should be appropriately self-sufficient.

None of that, however, changes the fact that the environment we work in has the same influential elements and aspects for all of us. None of us are in the business of just processing data. As you've heard many time before, data is a resource item. You either have it or you don't. We are in the business of generating and communicating information to support the management, measurement, and development of government programs.

If I may take the latitude, I would like to depict the technology environment we're working in as a pyramid, showing the layers of the environmental influences.

The Pyramid has as a base the departments, and their business programs, functions, rationale, objectives and priorities.

These are most certainly the main influencing factors on your working environment and when you roll them all together that represents a significant set of influences on ISD, quite varied and sometimes quite unique.

The pyramid has an apex, - the corporate or cabinet committee influence. That's where the real priorities are set, that is where the real focal point of government business, directions and purpose are concentrated. We rarely participate at that level. That tone is set by Board of Management and/or Cabinet Secretariat.

The next level in this environmental pyramid is policies. Policies which outline strategies, directions, establish a clear sense of purpose, set goals,and which allow opportunities for the creation of tactical plans to meet objective steps along the way.

The remainder of the environmental pyramid are people, all of us. We are the factors which affect our working environment the most and the ones over which we have the greatest influence.

Within our most direct sphere of influence the first set of elements relates to practices and procedures. I'm referring here to management philosophy/style, accountability/responsibility, methods of doing our work and the tools and techniques we apply.

The second set relates to resources.

These are the obvious ones, human resources, knowledge and skills, facilities base or, if you like, the technology complex of mainframes, minis and micros, money and time.

Now I will revert to the original agenda item description and share with you what we would like to do to influence our environment which of course is intended to provide you with a better service agency, and one which reflects all those external influences on us.

The influential factors within the area of policy, as set out by the "corporation", include: strategy; direction and purpose; goals with objectives to meet along the way.

Within ISD we can contribute to, and pursue, a course of action which is in sync with strategic directions and purpose. We are actively engaged in the pursuit of the "open" network, for example. This isn't just a tactical project. We feel it is strategically important to create a communications environment which supports multiple paths of accessibility, given a variety of access tools.

We feel that the ability to connect, to communicate, is strategically more important than complete uniformity in the technological environment.

Complete uniformity is great for standards, but standard principles can be as effective as standard techniques because the latter breaks down into a debate about which technique is best: a no win situation since the objective is to provide a channel of successful communication, not to find the best technique.

Today we feel that it is also strategically important to provide a channel of communicability among the busiest of documentation offices in the government. We will be pursuing that avenue.

We feel that the adoption of multi-purpose workstations is desirable and in fact we're following this course ourselves, where the effect is functional and justifiable.

In the area of goals, objectives, we're encouraging, supporting, and expanding our capacity to facilitate the creation of information systems plans within the context of both departments and overall government.

In the environmental zone I've called 'practices and procedures' we are working on re-addressing the whole area of what we refer to as applications development... the roles/responsibilities, the methods applied, and the tools and techniques used and available.

We have indicated that we wish to improve this process and most definitely intend to involve and share this process with you. After all, we both have a lot at stake in every application project. We never quibble over the objective, it's the roles, responsibilities, tools and techniques.

We intend to continue with the selection of tools which yield higher productivity, faster and better quality systems, and not all of this is achieved through the magic of micros. Much of this comes from using the best knowledge, skills and experiences of the people around us.

The last, but certainly not the least of the influences on our working environment are the resources we have to work with:

PEOPLE - FACILITIES - MONEY - TIME

PEOPLE

At the moment we're short of staff in the information systems division. That may seem hard to believe but we are in fact short by about 15 people throughout the division to:

- Maintain the current levels of services;

- to speed the evaluation and selection of strategic new products;
- to support the increasing need for training and education;
- to support the expanding base of the technical facility; and
- to provide the levels of service required by planning and development support.

We plan to provide much more in the area of training for people working in ISD, and as you know, we endeavour to provide new experiences and opportunities by staff rotation. This is sometimes painful for all of us but it's an essential ingredient to the process. You can help us quite a bit in this area.

THE FACILITIES BASE

As Jerrie said yesterday, in the Unisys area we're moving into the relational database product with RDMS1100. This product is further supported with an active data dictionary, an interface to the existing DMS1100 software, SQL statements generated via either a product called RSA (most useful for our staff) and another called IPF1100 which will be of more general use.

We are looking into "Application Code Generators" as potential time-savers as well.

Mapper remains to be the Unisys 3-4 GL but a product called LINC is on the horizon which has more features and more functions and produces an end-product which is more gentle on machine cycles. You could say that we're always looking for the Holy Grail, a programming language tool that is suitable for the vertical market mainframes, mid-frames, micros.

In the IBM area we're planning an expansion to the facility which should come to fruition soon. We're planning to bring the relational Database DB2 into place, along with QMF to provide access to the Database. At this point the votes are not in on which 4GL we'll acquire for that mainframe.

We use micros extensively for applications work now and will continue this trend until we arrive at the perfect workstation for all the aspects of that kind of work. We have a large investment in Excelerator as an analyst/designer tool. We may lean toward doing much of our programming off-line as well, thus freeing up more mainframe capacity for on-line transactions systems.

MONEY...MONEY...MONEY

Everything we do costs money. Most of it is money from your budgets, and that particular resource is getting to be in short supply.

Much of what we plan to do is a reaction to taking a reading on what you have been asking for:

- more access
- more communications
- more ability
- more involvement with better tools
- more activity throughput

It all costs money, people, time and effort and since we obviously have individual and collective limits on these resources, we'd best come up with a good way to share them effectively.

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

RESULTS OF BREAKOUT SESSIONS

summarized by

DAVE LOUKES

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN **NOVEMBER 18-19, 1987**

BREAKOUT SESSION INFORMATION THURSDAY NOVEMBER 19, 1987

Purpose

The purpose of these sessions is to gather comment, information and support from our clients on ISD's environment; on our recent performance; and on any issue which a client may wish to discuss.

This a forum for our clients to express their ideas, comments and opinions; ISD should perform the role of a good listener.

Format

The clients are being divided into five groups of about 10 to 12 people plus ISD staff.

1. Clients from a single department are spread into different groups as much as possible;
2. A representative from ISAC in each group;
3. A mixture of small and large departments in each group;
4. One of ISD's directors (5) in each group;
5. Two of ISD's managers (8) in each group;
6. Two of ISD's Client Services Project Leaders (10) in each group, where possible, with the departments they serve;
7. Each group will have a (prior appointed) facilitator and spokesperson from the clients; where possible a member of ISAC or a departmental Information Systems Coordinators, to run the session after the completion of the breakout session. One of the ISD's Client Services Project Leaders (prior appointed) will take notes for the spokesperson to cover in the summary talk.

Comment

Because of the shortness of time provided to our clients and because we truly wish this to be their session, ISD staff are asked to be listeners rather than active discussers. Now is not the time to explain, excuse, rationalize or justify. Should explanations be needed they can be provided later.

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18-19, 1987

BREAKOUT GROUP ISSUES

1. EDUCATION/TRAINING:
   - Need to share needs/ideas--FEEDBACK
   - Access Centre can be focal point (Tom Harding)
   - Introductory education for micros and other services
   - Subcontracting to Community College where appropriate
   - Educational survey

2. COMMUNICATIONS:
   - Planning advice/assistance
   - More senior management contact--Both ways
   - Emphasis on consulting/account management
   - Proactive vs Reactive
   - More marketing

3. MICRO EQUIPMENT/SERVICES:
   - Central micro inventory/used equipment
   - Common maintenance contracts

4. RESEARCH:
   - Hardware and Software
   - All levels
   - ISD should be leader

5. TECHNOLOGY STRATEGY:
   - Need direction established
   - Communications needed as to what's going on

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18-19, 1987

BREAKOUT GROUP RESULTS

GROUP 1 SUMMARY

1. **Question:** Is there a central government strategy for priorization of projects?

Response:

- No there is not.
- Individual Department basis budget review process.
- ISD will resource the demand.

Resolution: A "System Planning" mechanism on a collective basis.

2. **Question:** How are co-op students resources working?

Response: ISD and Departments rate their success as very high.

Resolution:

1) Contact UNB.
2) Contact Eric White of ISD for program details.

3. **Question:** Should ISD resources work/develop/support departmental computer systems?

Response:

- ISD had a timing problem with resource planning.
- ISD chargeback makes it difficult to support "Free-Bees".
- Private sector support has been positive alternative.

Resolution: Relocate ISD in house expertise to department locations.

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18-19, 1987

BREAKOUT GROUP RESULTS

GROUP 1 SUMMARY (cont'd)

4. Question: ISD central support versus departmentally located resources.

   Response:
   - No simple solution.
   - Software/Hardware releases are an example of an ISD requirement.
   - A management philosophy.

5. Resolution: At the mainframe level there is no simple solution.

   Question: What are (if any?) the measurement methods for ISD success performance?

   Response:
   - Negative responses get heard.
   - Slow reaction of ISD to short term resources
   - Contracts are a good current measure for medium projects and up.

6. Question: ISD Support

   1. Mainframes
   2. Minis Not well defined or established
   3. Micros

   Response:
   - Plan for future support to respond in the appropriate time frame.
   - ISD is in fact supporting micros

   Resolution: Direction must be established and policy developed.

7. Question: Micro Tender Process.

   Response: Well supported by ISD.

   Resolution: See Charlie Chiasson

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18-19, 1987

BREAKOUT GROUP ISSUES

GROUP 2 SUMMARY

Future Trends in Office Automation:

- Shift to micro computers as work stations.
- Still an important role for mini's and Lan's.

HELP FROM ISD:

- Training (Access Center)
- System Administration for smaller departments.
- Facilities--equipment
- Regional training is available

ISD willing to act as a co-ordinator for accessing outside training facilities.

Importance of advising ISD of our needs for future planning on their part.

Need for ISD to contact departments to discuss their present and future needs.

ISD/EDP CO-ORDINATOR SYSTEM:

- Still Working?

More and More Communication!

IRP:

Information Resource Planning (office automation) is a service available from ISD

ASSISTANCE IN IDENTIFYING:

Problems and solutions
(programs, systems, hardware)
Advice on latest technology
(hardware and software)

BREAKOUT GROUP ISSUES

GROUP 2 SUMMARY (cont'd)

MICRO MAINTENANCE:

- Vendor contracts
- Feasibility of co-operative joint efforts to achieve $ savings
- No in-house maintenance facilities

SECURITY:

Hardware and Software
inventory

MAINFRAME CONCERNS:

Update on changes implemented and planned
Sperry - IBM changes

If you have a question or an idea, talk to someone: EDP co-ordinator or direct to ISD.

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18-19, 1987

BREAKOUT GROUP ISSUES

GROUP 3 SUMMARY

1. ISD should be more proactive to issues and not reactive.

2. Not enough talk between ISD and clients although much better than before.

   Communications

3. Not working as a team.

4. GIS - GEOGRAPHIC:
   Information Systems
   - No overall Government direction
   - Perhaps ISD should assume a coordinating/leadership role.

5. COMMUNICATIONS TAKES TIME (spread the time)

6. MARKETING (help) TO DEPARTMENTS

7. ISD Reps--not enough (profile) visibility for such a nice group of people.

3. Very satisfied with operational level (Data Center) service.

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18-19, 1987

BREAKOUT GROUP ISSUES

GROUP 4 SUMMARY

Problems:

1. Management education at departmental level regarding expansion of computing requirements.
2. Long term planning/strategy.
3. Need for ISD to conduct awareness sessions with Senior Management on services and need for planning and strategy.
4. Use of Community Colleges for training.
5. Shared knowledge on product resources.
6. Poor Pen

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18-19, 1987

BREAKOUT GROUP ISSUES

GROUP 5 SUMMARY

Spokesperson - A. Wilkins

Question: which is biggest technical priority?

1. TRAINING (C. LANDRY)

- Conferences organized centrally to be held at other sites were cancelled for lack of resources.

Community Colleges

- offer courses on "popular software". Regions may not have sufficient interested people-can we simply purchase "seats" as does Canada Manpower?
- have we overlooked possibility of tying in Access Center and Community Colleges?
- private sector cannot offer this because of expense.
- we become training broker--assists employment at Community Colleges.

2. SERVICES (C. LANDRY)

- negative effect of staff rotation and clients - predicament of satisfying both client and career development of ISD resources.
- J. Fournier-Indecision based on possible migration to IBM. Bob Ellis explained that theme of migration strategy was to move closer to IBM technology and opening up new possibilities. We are developing new technology on BOTH machines. Users can expect good support from both UNISYS & IBM. Hardware trend in compatible printers etc? We have ability to make UNISYS terminals emulate a 3270 device.

BREAKOUT GROUP ISSUES

GROUP 5 SUMMARY (cont'd)

- What do you recommend for new acquisitions? Data intensive transaction oriented system should remain with UNISYS TIP environment.

A. Wilkins

- how well are micros working as mainframe terminals. Since we have experienced no problems, perhaps micros.

C. Landry

- availability of checklist for persons without computer knowledge for decisions making. We have an educational seminar on computer education. Is there a possibility of an ISD help desk-Project Leaders are to be that help desk.
- Services booklet an invaluable asset.
- Could be services booklet provide configurations without Departments.
- Supply & Services - can they recover costs from older equipment by offering to all government to bid on - C64's sitting in storage - why not in schools.
- What does "system" allow as in area of transferring equipment? Bob suggests talking to DHCS & DJA re equipment swaps. "Equipment Trader" - or "Central Clearing House". Through micro tender, we have knowledge of level of purchase since last tender-perhaps this can be of use. Can we set up a central registry?
- Genesys upgrade required by Sept/88 - Rodger questions - Vendor will not support this package past this date - do we go to new GENESYS package, maintain tables ourselves? ISD expects informational material on the new system - what it does and have. This is necessary for decision making process.

BREAKOUT GROUP ISSUES

GROUP 5 SUMMARY (cont'd)

D. Mundee

- concerned that ISD will not have sufficient knowledge re next software to accommodate requirements. Status of hardware upgrade.

- A lot of analysis and requirements def'n happening now their concern is can we deliver when the time is right? - Speaking in terms of WANG environment. Keep in regular touch with Rod Mills. On other hand, our supply of people to construct systems using new products is scarce. Currently 2 resources have been trained - 3 more to receive WANG/VS training sufficient to become conversant.

A. Wilkins

- he needs now a programming resource and resource is unavailable. He suggests Departments should commit themselves early.

C. Landry

- Chargebacks are taken too far.
- Nickle and dime up front

Training of the Road:
- Contract with Community College staff in regions.
- ISD co-ordinate the set-up of courses.
- contract price for course
- purchase seats on these courses for Provincial Government regional staff.

Services:
- there are problems with rotation of staff.
- insure that thee is sufficient overlap.

J. Fournier:

Major concerns about the phase-out of Unisys.
- its ok until 1992
- should we prepare to migrate

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18-19, 1987

BREAKOUT GROUP ISSUES

GROUP 5 SUMMARY (cont'd)

D.O.L. - P. Meyer

- approach providers continuity - resources in the branches.

C. Landry

- sees that we take chargebacks to far!!
- Be careful with - yes we can help you and it will cost you!!
  - nickel and diming approach.

C. Landry

- a start-up Education Seminar for people (managers) who have never seen a micro.
  - what do I need
  - software
  - hardware
  - training (where do I get it)

  - "The COMPUTER EQUIPMENT TRADER"
    - old equipment is offered for resale. Departments would offer old equipment for resale.

Roger I.

- Genesys Upgrade Departments by September 1988.

Dean:

- programming support for Departments who do not have the resources.
- Planning functions for above.
- Evaluation of software

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

RESULTS OF MICRO TENDERS

presented by

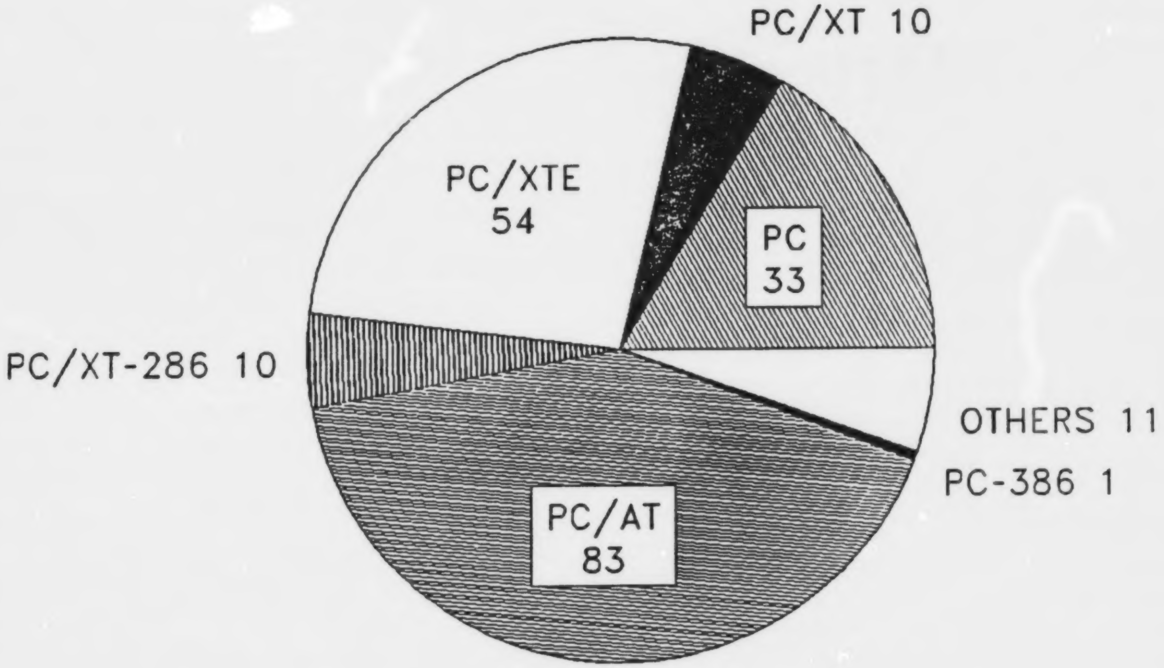
CHARLIE CHIASSON

AGENDA

1. Buying Trends
2. PS/2 Considerations
3. Configurations Requested
4. Configurations Awarded

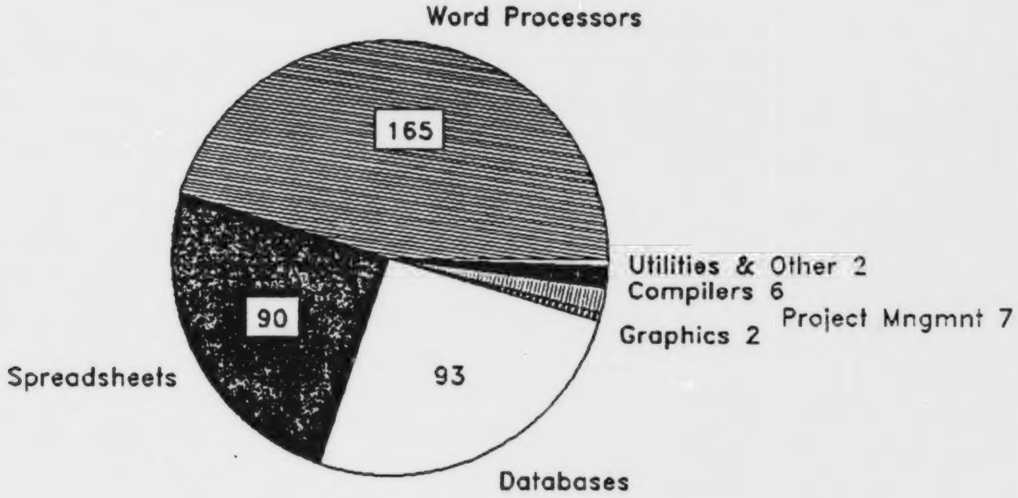
PC's BY CLASS

Tender 2170 - Oct.31/87



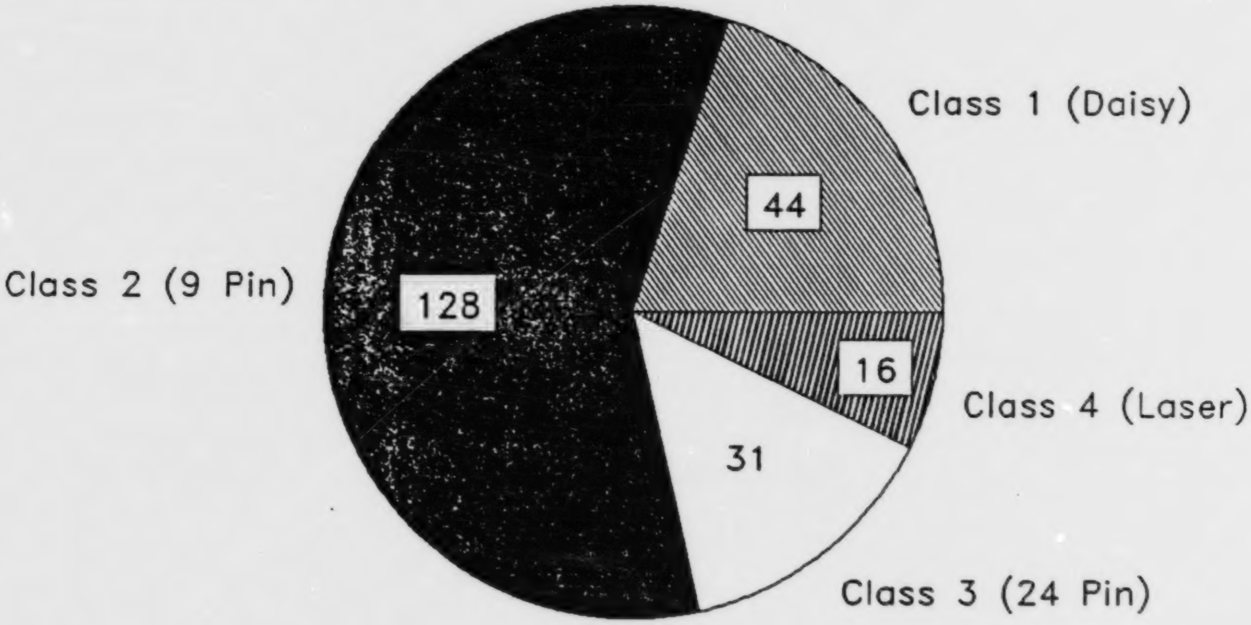
SOFTWARE BY CLASS

Tender 2170 - Oct.31/87



PRINTERS BY CLASS

Tender 2170 - Oct.31/87



SUMMARY OF ARCHITECTURAL CONCLUSIONS

- Very little difference in processors used.
- PS/2 models have improved mass storage capabilities. The improvements are minor and not exclusive to IBM.
- PS/2 models (except Model 25/30) have an additional 64 KB of ROM containing IBM proprietary code to support multitasking.
- PS/2 models have improved video services. These are also available with PC architecture machines in a limited fashion. Multiscan (analog) monitors are available, but EGA adapters are missing modes with 256 colours.
- PS/2 models (except Model 25/30) have an improved bus to support multitasking, but expansion slots are incompatible with PC architecture boards.

SUMMARY OF REQUESTED CONFIGURATIONS

CLASS 1 - PC

	EC'NMY	ENH'CD	PS/2	PRTBL
Processor	8088-2(8)	XXXXXX	8086(8)	XXXXXX
ROM Mem	64 KB	XXXXXX	64 KB	XXXXXX
RAM Mem	512 KB	XXXXXX	512	XXXXXX
Floppies	1-360 KB	XXXXXX	1-720 KB	XXXXXX
Hard Drive	XXXXXX	XXXXXX	XXXXXX	XXXXXX
Keyboard	Standard	XXXXXX	Standard	XXXXXX
Video	HercMono.	XXXXXX	MCGA	XXXXXX

SUMMARY OF CONTRACT AWARDS

CLASS 1 - PC

ECONOMY

ICS Turbo 88	$ 950	Interactive Computers

IBM PS/2

Model 25	$ 1697	Microage (Bayco)

SUMMARY OF REQUESTED CONFIGURATIONS

CLASS 2 - XT(E)

	EC'NMY	ENH'CD	PS/2	PRTBL
Processor	8088-2(8)	8086(8)	8086(8)	8088-2(8)
ROM Mem	64 KB	64 KB	64 KB	64 KB
RAM Mem	640 KB	640 KB	640 KB	640 KB
Floppies	1-360 KB	1-720 KB	1-720 KB	1-360 KB
Hard Drive	20 MB	20 MB	20 MB	20 MB
Keyboard	Standard	Enhncd	Enhncd	Standard
Video	HercMono.	EGA	MCGA	MonoGr

SUMMARY OF CONTRACT AWARDS

CLASS 2 - XTE

ECONOMY

ICS Turbo 88	$ 1395	Interactive Computers

ENHANCED

Amstrad PC 1640	$ 2760	Computerworld

IBM PS/2

Model 30	$ 3440	Datamaster

PORTABLE

Toshiba 1200	$ 3419	Olivetti

SUMMARY OF REQUESTED CONFIGURATIONS

CLASS 3 - XT286

	EC'NMY	ENH'CD	PS/2	PRTBL
Processor	80286(8)	80286(10)	80286(10)	80286(8)
ROM Mem	64 KB	64 KB	128 KB	64 KB
RAM Mem	640 KB	1 MB	1 MB	640 KB
Floppies	1-360 KB	1-1.2 MB	1-1.44 MB	1-360 KB
Hard Drive	20 MB	20 MB	20 Mb	20 MB
Keyboard	Standard	Enhncd	Enhncd	Standard
Video	HercMono	VGA	VGA	MonoGr

CLASS 3 - XT286

ECONOMY

ICS Turbo AT80	$ 2199	Interactive Computers
Samsung S500	$ 2350	Brunswick Data

ENHANCED

Samsung S500	$ 3279	Brunswick Data

IBM PS/2

Model 50	$ 4920	Datamaster

PORTABLE

Toshiba T3100	$ 4897	Olivetti

SUMMARY OF REQUESTED CONFIGURATIONS

CLASS 4 - AT

	EC'NMY	ENH'CD	PS/2	PRTBL
Processor	80286(8)	80286(10)	80286(10)	80286(8)
ROM Mem	64 KB	64 Kb	128 KB	64 KB
RAM Mem	640 KB	1 MB	1 MB	640 KB
Floppies	1-720 Kb	1-1.2 MB	1-1.44 Mb	1-720 KB
Hard Drive	30 MB	40 MB	44 MB	30 MB
Keyboard	Standard	Enhncd	Enhncd	Standard
Video	HercMono.	VGA	VGA	MonoGr

SUMMARY OF CONTRACT AWARDS

CLASS 4 - AT

ECONOMY

ICS Turbo AT40	$ 2349	Interactive Computers
Samsung S500	$ 2550	Brunswick Data

ENHANCED

Samsung S500	$ 3479	Brunswick Data

IBM PS/2

Model 60	$ 6997	Microage (Bayco)

PORTABLE

Compaq Prt III	$ 6675	Datamaster

SUMMARY OF REQUESTED CONFIGURATIONS

CLASS 5 - PC386

	EC'NMY	ENH'CD	PS/2	PRTBL
Processor	XXXXXX	80386(16)	80386(16)	XXXXXX
ROM Mem	XXXXXX	64 KB	128 KB	XXXXXX
RAM Mem	XXXXXX	1 MB	1 MB	XXXXXX
Floppies	XXXXXX	1-1.2 MB	1-1.44 MB	XXXXXX
Hard Drive	XXXXXX	40 MB	44 MB	XXXXXX
Keyboard	XXXXXX	Enhncd	Enhncd	XXXXXX
Video	XXXXXX	VGA	VGA	XXXXXX

SUMMARY OF CONTRACT AWARDS

CLASS 5 - PC386

ENHANCED

Zenith	$ 7280	Microage (Bayco)

IBM PS/2

Model 80	$ 8997	Microage (Bayco)

6.1 ENGLISH SOFTWARE

Word Processors	Multimate Adv.II	1.1	397.00	Computerworld
	Word Perfect	4.2	290.00	Olivetti
Spreadsheets	Lotus 1-2-3	2.01	439.00	Interactive
	MultiPlan	3.0	172.00	Computerworld
	Supercalc 4	1.1	349.00	Interactive
Databases	dBASE 111 Plus	1.1	535.00	Olivetti
	Rbase System V	1.1	584.00	Computerworld
Graphics	Chartmaster	6.21	303.00	Olivetti
	PC-DRAW	1.3	199.00	Office Concepts
Project Mngmnt	HTPM 11	Latest	486.00	Olivetti
	Superproject	Plus	378.00	Computerworld
Compilers/Utls	Clipper	Aut. 86	506.00	Olivetti
	Norton Adv.	4.0	105.00	Office Concepts
Intergrated	Symphony	1.2	649.00	Interactive
	Framework 11	1.1	548.00	Olivetti
Desk Top Pub.	Ventura	1.1	683.00	Computerworld
	PageMaker	1.0	597.00	Olivetti

6.2 FRENCH SOFTWARE

Word Processors	Multimate Advantage	___	___	
	Word Perfect	4.2	329.00	Interactive
Spreadsheets	Lotus 1-2-3	2.01	439.00	Interactive
	MultiPlan	2.01	200.00	Office Concepts
	Supercalc 4	1.1	374.00	Computerworld
Databases	dBASE 111 Plus	1.1	560.00	Olivetti
	Rbase System V	___	___	
Graphics	Chartmaster	___	___	
	PC-DRAW	___	___	
Project Mngmnt	HTPM 11	___	___	
	Superproject	Latest	298.00	Comtec
Compilers/Utls	Clipper	___	___	
	Norton Advanced	___	___	
Intergrated	Symphony	1.2	680.00	Computerland
	Framework 11	1.1	719.00	Olivetti
Desk Top Pub.	Ventura	___	___	
	PageMaker	___	___	

Class	Carriage	Price	Printer	Vendor
1	N	$ 605.00	HP Thinkjet (150 CPS)	Datamaster
1	W	$ 975.00	HP Quiejet (150 CPS)	Datamaster
	W	$ 999.00	Brother NR-40 (40 CPS) Daisywheel	Interactive
	W	$1695.00	IBM Quietwriter 111 (80/60 CPS)	Datamaster
2	N	$ 270.00	Star Micronics NP-10 (100/25 CPS)	Interactive
	N	$ 294.00	Star Micronics NX-10 (120/30 CPS)	Computerworld
	N	$ 299.00	EPSON LX-800 (160/30 CPS)	Interactive
	N	$ 495.00	EPSON FX-86E (240/48 CPS)	Datamaster
	N	$ 640.00	EPSON EX800 (300 CPS)	Datamaster
	N	$ 796.00	IBM Proprinter 4201 (200 CPS)	Office Concepts

Class	Carriage	Price	Printer	Vendor
2	W	$ 537.00	Star Micronics NX-15 (120/30 CPS)	Computerworld
	W	$ 549.00	Brother 1509 (160/45 CPS)	Interactive
	W	$ 660.00	Panasonic 1592 (180 CPS)	Computerland
	W	$ 675.00	EPSON FX-286E (240/48 CPS)	Datamaster
	W	$ 825.00	EPSON EX 1000 (300 CPS)	Datamaster
	W	$1149.00	IBM Proprinter XL (200 CPS)	Office Concepts
3	N	$ 699.00	Cannon A60 (200/100/34 CPS)	Interactive
3	W	$ 999.00	Cannon A65 (200/100/34 CPS)	Interactive

Class	Carriage	Price	Printer	Vendor
4	N	$ 700.00	EPSON LQ-800 (180/60 CPS)	Datamaster
	N	$ 880.00	IBM Prorinter X-24 (240/80 CPS)	Datamaster
4	W	$ 999.00	Star Micronics NB 24-15(216/72 CPS)	Interactive
	W	$1025.00	IBM Proprinter XL24 (240/80 CPS)	Datamaster
	W	$1450.00	EPSON LQ-2500 (324/108 CPS)	Datamaster
5	N	$2559.00	OKIDATA Laserline 6 (6 PPM)	Comtec
	N	$2995.00	CENTRONICS Pageprinter (8 PPM)	McDonald Ventures
	N	$3195.00	HP LASERJET 11 (8 PPM)	Datamaster
	N	$4895.00	GENICOM 5010 (10 PPM)	McDonald Ventures

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

UPDATE ON COMMUNICATION STUDY

presented by

DANNY KEIZER

Data Network Architecture Project

Aimed at researching the need for and feasability of a Province wide Multi-vendor Data Network

If feasible and funding available, to result in implementation.

Phase One

Covered at last Client Conference

Looked at Requirements

- Access from regions to different hosts
- Access to different hosts from a single work station
- Host to host communications
- Increases in traffic
    - File transfers
    - Host to host services
    - Compound documents

Looked at current approach

- Overlapping Networks
- Lack of cross-connectivity

Did not quantify requirements

Proposed three architectures and one approach for further consideration

- Sperry (UNISYS) Architecture
- IBM Architecture
- Open Artchitecture
- Cost optimized (multiplexed) parallel networks

Phase finished in mid April

Report entitled **Proposal for the Definition of The Data Network Architecture of the Government of New Brunswick**

Phase Two

Requirements Quantified

- **Data Network Architecture Survey**
  - Distibution of access points
  - Traffic volume and characteristics
  - Typical access devices

Discussions with LRIS and "mapping group" in Municipal Affairs and Environment re image transfer.

Open Network Architecture recommended

- Allows for potential connection of any vendor's equipment using X.25 standard
- Other protocols can be handled using PADs
    - IBM terminal/controller to IBM host
    - Unisys terminal to Unisys host
    - Asynchronous terminal to asynchronous host
- Access from single termial to multiple hosts possible through protocol conversion
    - PC's with asynchronous terminal emulation or asynchronous terminals recommended for maximum cross-connectivity
    - Location of Protocol converters at host end recommended
- Could be implemented using Sperry (Unisys), IBM or "open vendor's" equipment
    - There are concerns related to each alternative

Preliminary remote network design proposed

- Would provide connection points in Fredericton and eight other locations: Edmundston, Woodstock, St. Stephen, St. John, Moncton, Newcastle, Bathurst, Campbellton
- Multiple trunk lines or DataPac accesses for backup
- Cost estimates
  - Initial $383,000 to $643,000 (could be higher)
  - Recurring $440,000 to $550,000 /yr
  - Projected 1990 parallel networks $573,000
  - Payback 3 to 16 + years
- Response time estimates (route with longest delay, 125 chars in, 1000 chars out)
  - Average load 2.5 to 3.4 seconds
  - Peak load 2.7 to 4.1 seconds

Charge-back (ideas)

- Clients pay for each packet transmitted
- Two rates (Fredericton, Remote)
- Clients pay for access to nearest shared facility (could include access lines, PADs, ports, controllers, etc.)
- Clients pay for protocol conversion at host end
- Cost recovery only
- Predictable
- Phased-in

Started and ended late due to illness of Marc Bage.

Report entitled **Assessment of Network Architectures Relating to the Data Network Needs of the Government of New Brunswick.**

Phase three

Further investigate feasability of Open Network Architecture

Select preferred vendors capable of providing equipment

Activities

- Refine preliminary network design
- Investigate impact of proposed changes to DataPac
- Consider DOT Microwave network as a transmission alternative
- Prepare requirements and detailed specifications and confirm with clients
- Issue RFP's for networking equipment and protocol converters
- Select preferred vendors
- Prepare guide for PC and Terminal Emulation selection
- Make recommendations re further action

Other work in progress

Centennial Building Cabling

- Almost complete
- Several types of connections in place
    - Wang 928 connections
    - IBM 3270 to controller connections
    - ARCNet PC to Active Hub connections
    - Asynch terminal to host connections

PC Lan evaluation

- Novell/ARCNet installed
- Dedicated Server plus 7 Workstations
- Network versions of software installed
    - Multimate Advantage II
    - Dbase III +
    - Rbase System V
    - Net Utilities
- Other software either run from server or used with filing and/or printing services
    - Multiplan
    - Lotus 1-2-3
    - VSCOM
    - Ventura Publisher
- Shared Printers highly used

PC Lan evaluation

- Evaluation items remaining
  - Electronic Mail
  - Performance measures
  - Remote access
  - PS/2 micro-channel
  - Sperry/IBM/Wang gateways
  - Token ring/Tapestry comparison.
- Final report due December 31

Information/Mail exchange

- Report still not ready
- X.400 MHS very promising
  - Very much a future
  - Some vendors supporting now but at simplistic level
- Soft-switch can provide interconnection now
  - Incomplete
  - High priced ($12,000 per single node or $48,000 for 6 node network for DEC and Wang)
  - IBM based
- Directory synchronization not addressed properly across vendor boundaries at this time.
- We are proceeding with Wang mail work
  - ISD Management network

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

UPDATE ON TECHNOLOGY STATEGY STUDY

presented by

DICK KIRKLEY

UPDATE ON TECHNOLOGY STRATEGY STUDY

by Dick Kirkley

We are always doing one more study. We've talked about the I.S.D. Transfer Facility study in the past few years. We have had people here who served on that task force, we also had some on the SMC study, some people will remember that and also took a look at information systems. The DMR communications study, which many of you would have contributed to, has been winding up in the last few months. I think many of us were briefed on its results a few weeks ago, and then we've had this Technology Strategy Study or DMR study or whatever terminology people tend to use for it. What does all this add up to? I suppose you're as confused as the rest of us are. I think we are getting somewhere slowly. One has to have patience if you are a public servant. Governments change, people change, and we find the issues are changing almost as quickly as the other factors.

I think the ISD task force served a very useful purpose. It brought the user and the suppliers together in a way that we really have not done before. It is really indirectly responsible for the kind of client conferences you're dealing with now. I would say directly, but someone else would have immediately jumped up and challenged me but indirectly I think we have reached the point now that we are talking to each other because we had that task force. The SMC study also told something about the technical failings in our organization. I talk primarily though about our organization itself, the organization for Information Systems. As a result of that, some changes in organization were made, and whether or not those have helped processes, only history is to say I suppose, but we will be making further changes in organization, but I think that again they have moved us to another level of understanding and another level of involvement with our Information Systems.

The DMR communications study was done in parallel with the technology study. At the time when DMR was looking across the country with a 110 clients in the syndicated sense at the issue of where and how the various technologies were merging we had decided to look at what that meant to us as a government and our use of Information System. So DMR used us sort of as a guinea pig in a sense as "my gosh here's a chance to use some of the things that we are learning about in the industry as a whole, on a real live case." I don't know if we benefited entirely with that, but at least the two tended to come into contact with each other.

What the communications study revealed was that the whole Information Systems sector is in a state of transition. We're going from a fairly straight forward life where the mainframe was king and perhaps the value of the service was at least far behind the king, to an era where the user is king and where the adaptability of Information Systems technology, the uses of it, will be available to every employee, at every level, and every organization. We're not at that point yet but we are in transition, and when you're in a transition period there is a period of uncertainty, a period of confusion, a period of wishing it was over and that someone would show some leadership and get us to that final stage. I think that's true with every major change process, and I would suggest what's happening with Information Systems is not a minor change at all. It's going to really make a difference to the way we do work within this organization and any other organization. We're certainly not at the leading edge, but we're certainly also not laggers in this area. Certainly from the seat I sit in, as governments go we're not doing bad as far as organizations go, I suppose we're on a scale of about 4 in 10, and we have a long way to go.

I think we're beginning to get a fairly critical sense of where it is we want to go. If I could quote an objective of the State of Tennessee, that somebody passed me the other day, their objective is to reach the point where any desktop is able to access any application at any level subject to authorization. And that's not a bad aim. We really want to reach the point where data information is available to anybody who needs it, whenever they need it and it's accurate and timely, and that's been the objective of our strategy in the committee where I have been acting as chairman for sometime.

It's easier to say that, than it is to get there. The way we have phrased our objective or our currect pursuit for strategy is to establish a strategic framework for information systems which will support the goals of the Government of New Brunswick. Phrasing it that way we have tried to see Information Systems at a strategic level, at conceptual level that perhaps we haven't considered in the past.

We normally think of the strategic level in the sense of organizations positioning themselves, businesses positioning themselves to be more competitive to beat the competition. In our case, who's our competition? It's probably the other provinces of Canada that we are competing against for funds from the Federal Government. The more we can get the easier perhaps life is for us. Looking at it another way, our competition is all the tourists who pour into Canada or the Maritimes. How can we use Information Systems to keep some of that tourism dollar within our province, so that would be kind of a strategic use. I don't want to labour that point.

We have to start thinking of the use of information systems to improve the services in a strategic sense to the people in this province, to do something in a broader scale. We have tended to concentrate on the operational side and that's what most of our current uses are. We are moving into what has been phrased as a tactical side of Information Systems in that area and I suppose that's where the managers get involved in the evaluation of programs and the productivity improvement and issues of that sort, but we have certainly not given a great deal of thought to the strategic side. That was the intent of our Technology Strategy.

I could go fairly quickly, was debating a few moments ago, whether to use some slides to illustrate the nature of the problem to a group such as you because you are probably more aware of the problem than I am. But let's just run through them for a moment and the kind of problem we saw, or the kind of problem at least that DMR pointed out to us is illustrated to us by a few of these slides.

First we've got a lot of systems, various vendors of various types, they're at various levels in the organization. We are an organization with two mainframes, and we are told that creates problems for us. We have departmental and work group, and I realize that the departmental part of that slide looks sort of empty, because I think that you could take some of the work group systems and hook them up in the departmental area just as readily, or that's the way it looked when the diagram was produced a few months ago. I think already we have Wang's up there, DECs up there and an IBM on site somewhere that's now up in that area.

However, the point of this diagram is that we have at least four levels of information technology, information architecture in our organization and we've got all kinds of vendors and the problem is how do we make all those machines connect and talk to each other and become compatible. I'm not going to dare talk any technical terms to an audience like you, that's about as far as my technology goes.

In this next slide the consultants were pointing out to us, using the same pyramid structure, that we have: the strategic, tactical, and operational levels. Applications have at least two of those levels and we've got all kinds of barriers between the applications. It's hard to move information from one application to another. It's hard to move information from one level to another, and that's the problem. We've got to start taking away those double lines and make it possible for information to flow freely through the organization through all these systems. In other words we must be more connective than we are today.

Some of those barriers are barriers in policy, some are barriers in attitude, some are barriers of people saying it is my information and I won't give it to anybody. We have to overcome that kind of a barrier. We're all working for the same company and the information belongs to the company and I think that we have to accept that. Information is power but it's a lot more power if we share it than if we try to keep to ourselves. Again this is an attitudinal problem that we have to correct. With the cost features, again we spent a lot of money on mainframes. The growth of mainframes, as shown by these diagrams, is starting to level off, and trail off in the distance like a rocket disappearing. It looks almost from that diagram like it's going to fizzle out, however I'm sure that is not intended. The minis have been growing, we're spending more on them and it was only three years ago that people told me, when I started to look at the issue of productivity in government, don't worry about micros, micros aren't a problem. They're throw aways, there something like calculators, you buy them, they break, and you throw them away. Three years ago we were'nt too concerned about micros joining each other, talking to each other. Now we know what the growth of micros has created. As soon as you get three micros, you want to have the three of them talk to each other, you've got a network and you're into something a lot more powerful. The micro itself is so much more powerful, and I'm told that we're not very far away from micros that will do as much as our mainframe, and do it just as fast. Well, once that starts happening we do have to be concerned about our micros and we do have to be concerned that they are compatible and they are connective, and that the networks that are used to connect them are not isolated little networks. So it becomes a total problem, not three problems. It is the problem of the hardware and all of the systems and all of the applications that we have to be looking at.

I'm sure that most of you saw the results of the Federal Auditor General's recent report, where he pointed out that the mainframes in Ottawa were in a mess and they have a lot more than two mainframes in Ottawa of course. Each department tends to have its own mainframe system. There's hardly any chance that they will ever be connected, and in addition to that I think there were 12,000 PC's and those 12,000 PC's in the eyes of the Auditor General were doing 10 times as good a job as the multitude of mainframes. When I think of 12,000 isolated PC's floating around Ottawa, and the amount of duplication and the amount of undocumented programming that's probably in them, makes one think our problems are pretty small, and they really want to start talking to each other in Ottawa. Well let's put it this way, I wouldn't use them as a model. We should start to solve our own problems, however we(the whole government) are about the size of one of their departments. We shouldn't look at them and think that we are better.

They also indicated to us, on assessing the applications on these points that our applications, as in the second diagram I have shown, were specific to one process, that you really couldn't get the data from one application very readily into the other. You can do it as you all know but it takes a few weeks of programming time and somebody to do it. The result being we have too many data files, we don't have corporate data files, we don't have departmental data files, we don't have work group data files. We tend to have application related data files, and that creates a good part of our problem. As I say they may as well run on separate Computers because they're not connected. Don't take all of this as absolutely true, these are very general statements. At any rate, with this type of situation in front of us, they were suggesting that we start trying to do it differently. They did put some emphasis on the point I raised earlier that we need to start thinking strategically.

This diagram in the area on the left represents where we are using Information Systems. The area on the right is the potential for Information Systems and it tries to illustrate that operationally and tactically we've got more than half. In a strategic sense we've hardly scratched the surface, so there's still work to do operationally, there's still work to do tactically and there's a great deal of work to do if we want to be strategic in areas of Information Systems. That top part takes some imagination to come to grips with it.

Finally, you've all heard this before that there's departmental systems, corporate systems, and work group systems, desktop systems. They need to be connective, they need to be able to flow information. If we want to reach the objective that I quoted from the state of Tennessee, then at my desktop I should be able to access corporate data and not worry about where it is on the system. I as a laymen in the sense of technology should not care whether I'm getting that out of a Sperry system, IBM system, DEC system. I shouldn't worry about whether the data I'm picking up and using has been somehow put into Labour's system for a while because there is some space there or whether it's on mainframes, or whether its on the guy-next-door's desktop. All that I should be concerned about is that it is accurate information, that it is timely, that I can get at it, and I can use it. The hardware is a problem of the people in the Information System Division and the various experts situated around the government. But in order to do that we are going to have to create a corporate database, and we're going to have to create departmental databases and all of the information and all of the data used by say the department of Health is in one file, then corporate level wants to have access to it then Bang! just throw a few switches and get that information. When I want to buy a desktop, I don't know what switches do fall in place, but some data would come from the corporate file, some might come from the department of Health's own departmental file, some might come from the Medicare work group file, but it finally ends up on Dick Kirkley's desk and I find it very quickly when it arrives on my desk. I know that it is reliable information, and I can quote it at Cabinet Meeting or to my boss or to myself, at any rate I am using reliable and available information.

The situation which exists currently, and in conductivity sense, looks something like this diagram. We are connected in some areas and not connected in others. Our Wangs are not tied together as it shows, NCR's education system and school boards are not tied to anything but themselves, and the final diagram just indicates where we are trying to go. In a hardware sense or a technology sense our architecture just has to be connected. Over the next few years or months, we hope to be able to achieve that. I'm told that the solution of that is something called the open systems network and I'm also told that our friends in ISD are 80% of the way there, or something like that, and that it won't be long before all those systems that now are not connected are, and we can start polling information, if we could only get to standardize, if we can only get it organized in a way that it makes sense when it reaches us. All of that is old news to you.

The recommendations that came out of the task force is probably also old news and the grapevine has been discussing these one way or another for a long time.

The recommendations made by DMR are still not policy. They will not be policy of course until the new Cabinet considers them and gives them its blessing. We've been held up because of the election, just about the time we were ready to take the issue to them. The old guys didn't come back, and we got a whole bunch of new ministers of course, and they have a lot of higher priority issues than this one to consider right now.

It is our intention however to take the issues and recommendations coming out of the DMR technology study to the Cabinet or to the Board of Management Ministers at any rate in about two weeks time. Jerrie Fowler and I will be meeting with the executive sponsors, that is the three senior deputy ministers who gave us direction and leadership throughout the whole study, on Friday of next week. We'll just be going over where we are now and the kind of recommendations we feel we should be making to the Board from that collection of recommendations DMR made, and the following week, if I can get it on the agenda, we will be taking it to the Board.

I can summarize and help you appreciate it puts us in a rather sensitive situation. We have recommendations that have to be considered by cabinet, some of them may be political and it's difficult to discuss those recommendations in public.

It is difficult to discuss those in a very specific way until we have taken them to the political level. So I'll try to cover them in a very general way. We're determined to establish the framework which will permit us to share information throughout the government. We're committed to trying to get all of the anomalies out of our system, whether they are hardware anomalies, or systems anomalies or policy anomalies and the recommendations attempt to do that.

We have started with a strategic exercise as our goal but I won't go into that right now, because we haven't really got any strong strategic goals. We could give you an indication of the kind of things we're talking about. We have to talk about all of our government information systems, we have to recognize that we live in a political environment and therefore we have to have our systems positioned in a way that we can be quite flexible. If we were Simpson Sears, or Sears I suppose we could say that we're going to be this way for the next twenty years. In the next twenty years we may have a lot of different directions in a political sense, so we always have to position ourselves on the balls of our feet, so to speak, so we can move in other directions and that has to be a feature of any strategy we put in place. Flexibility has to be a very key part of it.

We may have to develop stronger regionalization ties and many of you come from departments with strong regional elements, and clearly any service we put in place has to serve the regions of the province well.

In a strategic sense if we start thinking in terms of political regionalization that is getting more power into the regions, then that could have a very significant effect on where we locate our resources and the kind of systems we develop. I don't know whether we will get that kind of direction, but I'm saying that if we do we obviously have to get into position to respond to it. We are a bilingual province and therefore everything we do has to be available to both language groups. We should not limit our strategy to our current applications, but we should be in position to expand our services directly to the public. We'd like to be in a position someday when a person applying for a birth certificate in Bathurst would directly receive that birth certificate in Bathurst. Now if we could get it so its like the automatic tellers where they just put their card in and out pops the information they want, I suppose that would be great, but at least we should be able to hand that birth certificate over a counter when they ask for it. At the present time our link to Bathurst is probably by mail and those types of things are what we are referring to when we're talking direct services to the public. The equivalent to the automatic tellers is something we should be starting to think about, what is it, what kind of equivalents do we have, in providing services directly to the public. I can think in terms of tourists walking into the tourist information centre perhaps across the border and instead of seeing a little note pinned to the window or door saying Tourist Alert which is what I saw in Moncton last summer, there is a screen there and by touching various indicators and graphics on the screen they would finally get to the Tourist Alert, or to the tourist accomodation or get to the right highway to Nova Scotia, which seems to be what we encourage the tourists to do around here. In other words, a touch screen type of technology available in our tourist offices would be an equivalent to the automatic teller we could offer at least to visitors in the province. Take that same concept into the area of Health care and seniors care, and the seniors could walk in to a single government office and find out what all the services available to them are, in a very simple kind of way. A touch screen would be quite an improvement in giving information to them. These are the kind of strategic issues again that we should be looking for.

Our specific recommendations which I will summarize in a very broad way. The major breakthrough in the DMR strategy from the other exercises I talked about earlier came when we raised the level of interest. We were able to convince probably the three most senior deputy ministers or the most critically positioned deputy ministers in our government in relation to Information Systems to serve as sponsors of that study and to come to the meetings in most cases to make decisions and to give direction. All of the other work we had done had been directed at either the assistant deputy minister level or below. So at last, we have the deputy ministers' attention. When we presented the information at various stages through the study we presented the interim findings to groups of deputy ministers and in the main they came, or a lot of them came. At the final stage when we made recommendations on a steering process for strategy if accepted by government, they insisted that they become that steering committee so that if this policy as outlined by DMR or modified by us is accepted by government, the information steering committee, that I am currently chairman of, will disappear and will be replaced by a committee of deputy ministers, and I think this is very significant, because we are going to start getting direction from the level where the buck stops in the administrative sense. They were interested enough to want to play that role, and interested enough to agree to give that amount of time that it will require.

The other concept that was accepted was a need for a non-technical person to become the prime mover of the development of information throughout our organization. The concept of the chief information officer that's been in the literature and in a number of organizations for a long time is finally arriving in New Brunswick and as a result of this study and as a result of these recommendations, again if accepted by Cabinet, we will appoint a person. We won't call it chief information officer because that term is like chief executive officer, it is not a term we use in government but will have that responsibility. It won't be a responsibility of the technology and won't effect directly the role Bob Ellis plays or Jerrie Fowler plays but it will effect the overall integration of our Information System. What that individual really will be saying to ISD is that this is what we need in order to be integrated and, I expect you to provide it. In a technical sense they will provide it.

That function that is being determined will be attached to the Cabinet Secretariat not to the Board of Management, nor ISD. The reasoning behind that is the Cabinet Secretariat has the most interest in establishing corporate data, and having access to corporate data, so the motivation to get a corporate information file together will be strongest, we feel, within the Cabinet Secretariat. It will be guided by a committee of Deputy Ministers who would only meet monthly, and will not be sitting on this CIO's shoulder every day of the week. The CIO level, we believe should be at the most senior Assistant Deputy Minister level, so it will be just below the Deputy.
The specific recommendations, I'm really not prepared to go into, but those that have been made, and those that you have heard rumours about, some of them will be right, and those are the ones we will be taking to the Board. I didn't say much, I realize.

In summary, the Executive sponsors and the Deputy Ministers who listen to the briefings have all agreed that the general recommendations contained in the DMR report should proceed to the Cabinet level for approval. I am prepared to answer any questions as long you don't get me in trouble for the next couple of minutes, however I suppose we are running out of time.

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

CONFERENCE WRAP-UP

presented by

GARY ANDREWS

Information Systems Conference Questionnaire
November 18 - 19, 1987

We would appreciate your feedback on the November 18 - 19 Information Systems Clients Conference. With your input, we will be able to make future conferences even more useful to you.

___ Information Systems Division Staff

___ Client

I **Sessions: Wednesday Morning**

a) "Introduction to Office Automation" presented by Danny Keizer.

1 Not Useful	2	3	4	5	6	7	8	9 Very Useful

Comments:

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b) "Planning of Office Automation" presented by Caorl Young, Transportation.

1 Not Useful	2	3	4	5	6	7	8	9 Very Useful

Comments:

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____

____

c) "Panel Discussion on Departmental Office Automation Experiences; -Micro" presented by David MacLeod, Justice.

1 Not Useful	2	3	4	5	6	7	8	9 Very Useful

Comments:

____

____

____

Information Systems Conference Questionnaire
November 18 - 19, 1987

I **Sessions: Wednesday Morning (Con't)**

d) "Panel Discussion on Departmental Office Automation Experiences: -Mini" presented by Gary Fraser, Commerce and Technology.

1 Not Useful	2	3	4	5	6	7	8	9 Very Useful

Comments:

e) "Panel Discussion on Departmental Office Automation Experiences: -Mini" presented by Stuart Oulton, Labour.

1 Not Useful	2	3	4	5	6	7	8	9 Very Useful

Comments:

f) "Panel Discussion on Departmental Office Automation Experiences: Dedicated Special Purpose Machine" presented by Arnie Wilkins, Board of Management.

1 Not Useful	2	3	4	5	6	7	8	9 Very Useful

Comments:

Information Systems Conference Questionnaire
November 18 - 19, 1987

II **Sessions: Wednesday Afternoon**

a) "End User Computing As We See It" presented by Jerrie Fowler.

1	2	3	4	5	6	7	8	9
Not Useful								Very Useful

Comments:

b) "Desktop Publishing" presented by Bill Hall, ISD.

1	2	3	4	5	6	7	8	9
Not Useful								Very Useful

Comments:

c) "Document Transfer to the Queen's Printer" presented by Paula Woods

1	2	3	4	5	6	7	8	9
Not Useful								Very Useful

Comments:

d) "Document Transfer to the Translation Bureau" presented by J. S. Maillet

1	2	3	4	5	6	7	8	9
Not Useful								Very Useful

Comments:

Information Systems Conference Questionnaire
November 18 - 19, 1987

III Sessions: Thursday Morning

a) "The Information Systems Environment" by Bob Ellis.

1	2	3	4	5	6	7	8	9
Not Useful								Very Useful

Comments:

b) "Breakout Sessions - Client Feedback on the Information Systems Environment", Dave Loukes.

What changes would you recommend for future Client Feedback - Breakout Sessions?
Comments:

Was the Breakout Session useful?
Comments:

Information Systems Conference Questionnaire
November 18 - 19, 1987

V Other (Con't)

b) Could you suggest any change in the format of this seminar (e.g. less/more formal sessions, more one-on-one meeting time?)

Comments:

VI Facilities and Service

a) Were meeting room and other such facilities acceptable?

1	2	3	4	5	6	7	8	9
Poor								Very Excellent

Comments:

b) Were meals satisfactory?

1	2	3	4	5	6	7	8	9
Poor								Very Excellent

Comments:

c) Coffee, juice, and beverage services?

1	2	3	4	5	6	7	8	9
Poor								Very Excellent

Comments:

Information Systems Conference Questionnaire
November 18 - 19, 1987

VI **Facilities and Services (Con't)**

d) Registration process?

1	2	3	4	5	6	7	8	9
Poor								Very Excellent

Comments:

e) Overall Comments:

Please Return Form To:

Mr. Gary Andrews
Information Systems Division
Room 613, Centennial Building
Post Office Box 6000
Fredericton, NB
E3B 5H1

INFORMATION SYSTEM CLIENT CONFERENCE

November 18-19, 1987

APPENDICES

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18 - 19, 1987

CONFERENCE DESCRIPTION

WEDNESDAY NOVEMBER 18, 1987

8:00 REGISTRATION

Registration will be starting at 8:00 am. Coffee will be available at that time. Note that most conference attendees will have already been registered (by completing the registration form and returning it to the Information Systems Division prior to this conference) and will only have to pick up the Conference Handout Package and of course their individual Name Tag. For those who have not yet registered, please fill out the enclosed registration form so that a Name Tag may be completed, to receive the Conference Proceedings and to receive future information.

8:40 INTRODUCTION TO THE CONFERENCE JERRIE FOWLER

The conference will be opened by Jerrie Fowler the Assistant Deputy Minister of Supply and Services.

8:45 INTRODUCTION TO OFFICE AUTOMATION DANNY KEIZER

This session will give a brief overview of what Office Automation is all about to give all attendees a common starting point. It will include a handout of terms and explanations.

CONFERENCE DESCRIPTION

WEDNESDAY NOVEMBER 18, 1987 (CONTINUED)

9:20 PLANNING OF OFFICE AUTOMATION CAROL YOUNG

This session will cover considerations for planning and implementing Office Automation in an area and how to manage it.

9:40 PANEL DISCUSSION ON DEPARTMENTAL OFFICE AUTOMATION EXPERIENCES FOLLOWED BY QUESTIONS AND COMMENTS JEAN-CLAUDE HACHE

This is a feature session to share first-hand experiences of various departments who have embarked upon Office Automation. It is structured so as to provide experiences from different application levels --- micro, mini and dedicated special purpose machines. Time has been allocated for an audience participation session and attendees are encouraged to direct questions to the panel members as well as becoming involved in any general discussions arising from the presentations or from comments made by other attendees. Don't forget, please talk, talk and talk.

CONFERENCE DESCRIPTION

WEDNESDAY NOVEMBER 18, 1987 (CONTINUED)

1:30 END USER COMPUTING AS WE SEE IT — JERRIE FOWLER

This session will cover end user computing the Information Systems Division's point of view.

2:00 DESKTOP PUBLISHING — BILL HALL

This session will explain Desktop Publishing, what it is, and how it fits within Office Automation.

2:30 DOCUMENT TRANSFER TO THE QUEEN'S PRINTER - TRANSLATION BUREAU — PAULA WOODS, J. S. MAILLET

Most departments will have need at one time or another to transfer documents to certain central agencies such as the Queen's Printer or Translation Bureau. This session is intended to give attendees an insight into how to make such transfers to these agencies. Specific hardware and software requirements to link up with these agencies will be discussed as well as procedures associated with using electronic document transfer to them.

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18 - 19, 1987

CONFERENCE DESCRIPTION

WEDNESDAY NOVEMBER 18, 1987 (CONTINUED)

3:00 AN OVERVIEW OF THE DEMOS MIKE HENNESSEY

1. DESKTOP PUBLISHING IBM COMPATIBLE AND VENTURA
   Demo the package Ventura with an IBM compatible AT, the HP series II laser printer and an HP OCR scanner by Danny Keizer / colleagues.

2. DESKTOP PUBLISHING IBM COMPATIBLE AND PAGEMAKER
   Demo the package PageMaker with an IBM compatible and HP series II laser printer by LABOUR.

3. DESKTOP PUBLISHING MacINTOSH AND READY SET GO
   Demo the package Ready Set Go with a MacIntosh micro and laser printer by Bill Hall / colleagues.

4. THE TRAVELLING WORKSTATION
   Demo the use of a portable workstation to do electronic mail, calendaring, document exchange, access to departmental databases and financial information connected to office automation by Board of Management.

5. GRAMMATIK II
   Demo the use of this software package which is used to assist in the proper language construction of word processing documents. This is similar to a spell checker except it checks for phraseology, construction and general style of a document by Kim Leblanc.

FACSIMILE TRANSFER

Mention the transfer of 'picture documents'.

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18 - 19, 1987

CONFERENCE DESCRIPTION

THURSDAY NOVEMBER 19, 1987

8:30 THE INFORMATION SYSTEMS ENVIRONMENT BOB ELLIS

This session will describe the current Information System environment offered by the Information Systems Division on both the Sperry and IBM mainframe computers. It will include what we have now, what we are doing presently and where we are going. Any new services that are now being offered will be covered.

9:15 BREAKOUT SESSIONS ON THE INFORMATION SYSTEMS ENVIRONMENT DAVID LOUKES

This session is a return to the small 14 - 18 people breakout group format to facilitate a thorough discussion of the Information Systems Environment. It is the opportunity for clients to air their views and for the Information Systems Division to receive feedback on this topic. Remember you talk and the Information Systems Division listens. For these breakout sessions; the groups will be partitioned, a combination spokesperson and chairperson for each group will be selected and a recording secretary for each group will be selected, all prior to the conference by the conference planning committee.

11:10 BREAKOUT SESSION RESULTS DAVID LOUKES

This session reports the results of the breakout sessions to the conference as a whole with each spokesperson talking 5 to 10 minutes.

CONFERENCE DESCRIPTION

THURSDAY NOVEMBER 19, 1987 (CONTINUED)

1:30 RESULTS OF THE NEW MICRO TENDER CHARLIE CHIASSON

This session will update the client community on the October 1987 micro tender covering what was tendered, the successful bids, and perhaps even why.

2:15 UPDATE ON COMMUNICATIONS STUDY DANNY KEIZER

This session will update the client community on the Communications Architecture Project which has been underway for some time. The present phase includes a finalized conceptual design and the development of a Request for Proposal.

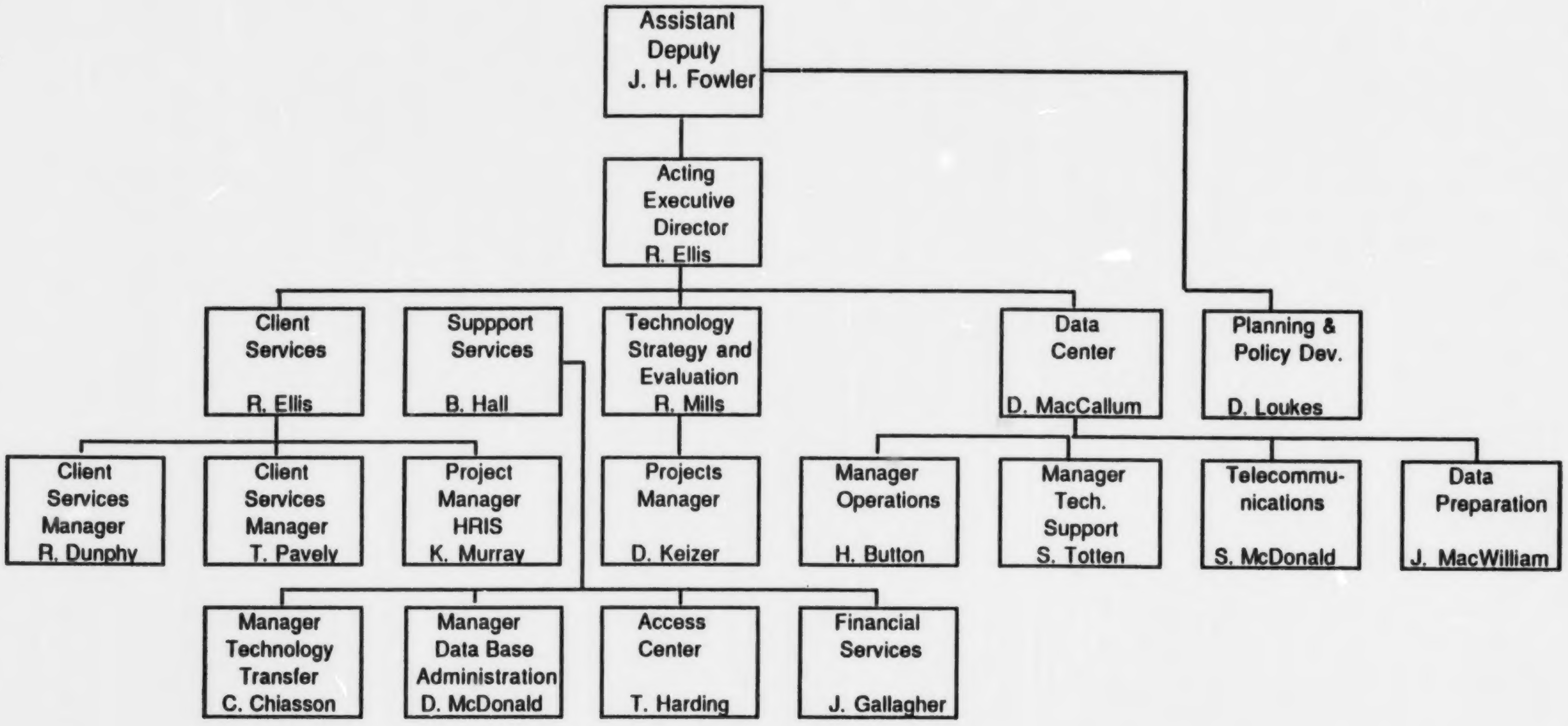
3:15 UPDATE ON TECHNOLOGY STRATEGY STUDY DICK KIRKLEY

This session will update the client community on the Government Technology Strategy study which has delivered a set of recommendations to the project sponsors.

3:45 CONFERENCE WRAP UP GARY ANDREWS

This session will request all attendees to complete and return the conference evaluation form; choose a target date and possibly a topic for the next conference and select (volunteers?) for the next client conference planning committee and finally close out the conference.

INFORMATION SYSTEMS DIVISION


Assistant Deputy J. H. Fowler
Acting Executive Director R. Ellis
Client Services R. Ellis
Suppport Services B. Hall
Technology Strategy and Evaluation R. Mills
Data Center D. MacCallum
Planning & Policy Dev. D. Loukes
Client Services Manager R. Dunphy
Client Services Manager T. Pavely
Project Manager HRIS K. Murray
Projects Manager D. Keizer
Manager Operations H. Button
Manager Tech. Support S. Totten
Telecommunications S. McDonald
Data Preparation J. MacWilliam
Manager Technology Transfer C. Chiasson
Manager Data Base Administration D. McDonald
Access Center T. Harding
Financial Services J. Gallagher

LIST OF ATTENDEES TO 1987 NOVEMBER CLIENT CONFERENCE

NAME	DEPARTMENT NAME	PHONE NO.
RICK WARD	AGRICULTURE	453-3694
ARTHUR NAISH	ALCOHOL AND DRUG DEPENDENCY	658-2755
CHARLES-EDOUARD LANDRY	REGIONAL DEVELOPMENT CORPORATION	546-9981
DICK KIRKLEY	BOARD OF MANAGEMENT	453-2062
TREVA AYER	BOARD OF MANAGEMENT	453-3835
DON FLETCHER	BOARD OF MANAGEMENT	453-3835
JAN GOOD	BOARD OF MANAGEMENT	453-3835
DAVE STRANG	BOARD OF MANAGEMENT	453-2215
ARNIE WILKINS	BOARD OF MANAGEMENT	453-3835
GARY FRASER	COMMERCE AND TECHNOLOGY	453-2474
GLEN HALLIHAN	COMMERCE AND TECHNOLOGY	453-2965
GORDON SCOTT	EDUCATION	453-2785
WILLIAM BRYDGES	EDUCATION	453-2785
ROGER IGNATIUS	EDUCATION	453-2785
DIANE WESTON	EDUCATION	453-2785
GEORGE COY	FINANCE	453-2708
JACQUES FOURNIER	FINANCE	453-2404
A.V.M. (VERNON) KITCHEN	FINANCE	453-2404
BARRY O'DONNELL	FINANCE	453-2708
DAYLE RIVA	FINANCE	453-2685
JEAN-CLAUDE HACHE	HEALTH AND COMMUNITY SERVICES	453-6396
JOHN CUTHBERT	HEALTH AND COMMUNITY SERVICES	453-2279
CHARLES MCKENDY	HEALTH AND COMMUNITY SERVICES	453-3807
RAY MCNEIL	HEALTH AND COMMUNITY SERVICES	453-6396
TERRY SABOURIN	HEALTH AND COMMUNITY SERVICES	453-2279
EMILIA SOUSSA	TRANSPORTATION	453-2990
JACQUIE CLEVELAND	TRANSPORTATION	453-2990
LOIS MACBETH	TRANSPORTATION	453-2990
LORI MACMULLEN	TRANSPORTATION	453-2990
CAROL YOUNG	TRANSPORTATION	453-2990
DIANNE YATES	JUSTICE	453-3693
JOANNE LEGER-DAIGLE	JUSTICE	453-2854
DAVID MCLEOD	JUSTICE	453-3693
ALAN RICHARDS	JUSTICE	453-3693
STUART OULTON	LABOUR	453-3976
PAUL MEYER	LABOUR	453-3976
JAMES STODDARD	LABOUR	453-3976
ANDREW WHITE	LABOUR	453-3976
YVES GODBOUT	LEGISLATIVE ASSEMBLY & AUDITOR GENERAL	453-2243
JEAN FISHER	MARITIME HIGHER EDUCATION	453-2844
DANIEL GODBOUT	MARITIME HIGHER EDUCATION	453-2844
WILLIAM AYER	MUNICIPAL AFFAIRS AND ENVIRONMENT	453-2669
BILL MORRISON	MUNICIPAL AFFAIRS AND ENVIRONMENT	453-2075
PLEN DICKSON	MUNICIPAL AFFAIRS AND ENVIRONMENT	453-2075
SHIRLEY GILLIES	MUNICIPAL AFFAIRS AND ENVIRONMENT	453-3925
MICHAEL MCKENDY	MUNICIPAL AFFAIRS AND ENVIRONMENT	453-3925
GARY MERSEREAU	MUNICIPAL AFFAIRS AND ENVIRONMENT	453-2652
MARY ELLEN OWENS	MUNICIPAL AFFAIRS AND ENVIRONMENT	453-3611
LAWRENCE PETERS	MUNICIPAL AFFAIRS AND ENVIRONMENT	453-2353
ART SKALING	MUNICIPAL AFFAIRS AND ENVIRONMENT	453-2133
PAT TANG	MUNICIPAL AFFAIRS AND ENVIRONMENT	453-2626
LYNDON FAIRWEATHER	NATURAL RESOURCES AND ENERGY	453-3217

FAYE COWIE	NATURAL RESOURCES AND ENERGY	453-5598
SHARON REYNOLDS	NATURAL RESOURCES AND ENERGY	453-5598
BILL WAUGH	ADVANCED EDUCATION AND TRAINING	453-2479
NORMAND BRUNELLE	ADVANCED EDUCATION AND TRAINING	548-4591
GRANT MACLEOD	NB HOUSING	453-7755
GARY BAIRD	INCOME ASSISTANCE	453-2866
DENISE CHASE	INCOME ASSISTANCE	453-2033
JO-ANNE HEMMING	INCOME ASSISTANCE	
PETER HUGHES	INCOME ASSISTANCE	453-3359
JERRIE FOWLER	SUPPLY AND SERVICES	453-3707
BERNICE CORMIER	SUPPLY AND SERVICES	453-5389
FERNAND LEVESQUE	SUPPLY AND SERVICES	
JEAN-SERGE MAILLET	SUPPLY AND SERVICES	453-5389
GAIL MITCHELL	SUPPLY AND SERVICES	453-2239
GARY NORCOTT	SUPPLY AND SERVICES	453-2245
PAULA WOODS	SUPPLY AND SERVICES	453-3437
DEAN MUNDEE	TOURISM, RECREATION AND HERITAGE	453-2070
LUIS NADEAU	TOURISM, RECREATION AND HERITAGE	
THOMAS PARKER	TOURISM, RECREATION AND HERITAGE	453-2897
LAURIE ROBICHAUD	TOURISM, RECREATION AND HERITAGE	453-2395
EUNICE STRINGER	TOURISM, RECREATION AND HERITAGE	453-3210
RONALD RICHARD	LAND REGISTRATION INFORMATION SYSTEM	453-3917
DAVID LOUKES	INFORMATION SYSTEMS DIVISION	453-2259
GARY ANDREWS	INFORMATION SYSTEMS DIVISION	453-5300
HARVEY BUTTON	INFORMATION SYSTEMS DIVISION	453-6279
CHARLES CHIASSON	INFORMATION SYSTEMS DIVISION	453-6259
DONNA CLARK	INFORMATION SYSTEMS DIVISION	453-3276
DAVID COWPERTHWAITE	INFORMATION SYSTEMS DIVISION	453-6281
SUSAN CRANDLEMIRE	INFORMATION SYSTEMS DIVISION	453-6217
RICHARD DUNPHY	INFORMATION SYSTEMS DIVISION	453-5158
BOB ELLIS	INFORMATION SYSTEMS DIVISION	453-8861
JANICE GALLAGHER	INFORMATION SYSTEMS DIVISION	453-8866
TERRI GRONDIN	INFORMATION SYSTEMS DIVISION	453-2180
BILL HALL	INFORMATION SYSTEMS DIVISION	453-8863
MUHAMMAD HANIF	INFORMATION SYSTEMS DIVISION	453-5072
THOMAS HARDING	INFORMATION SYSTEMS DIVISION	453-6253
DAVID HAYES	INFORMATION SYSTEMS DIVISION	453-8867
MICHAEL HENNESSEY	INFORMATION SYSTEMS DIVISION	453-6284
WILLIAM HOLT	INFORMATION SYSTEMS DIVISION	453-5162
DANIEL KEIZER	INFORMATION SYSTEMS DIVISION	453-4487
KIMBERLY LEBLANC	INFORMATION SYSTEMS DIVISION	453-4474
JEAN LEE	INFORMATION SYSTEMS DIVISION	453-8885
ROBERT LOUGHLIN	INFORMATION SYSTEMS DIVISION	453-4475
JUDITH MACWILLIAM	INFORMATION SYSTEMS DIVISION	453-2137
LES MATCHETT	INFORMATION SYSTEMS DIVISION	453-5326
ROD MILLS	INFORMATION SYSTEMS DIVISION	453-8862
KEITH MURRAY	INFORMATION SYSTEMS DIVISION	453-5165
TONY PAVELY	INFORMATION SYSTEMS DIVISION	453-8881
GEORGE PHILLIPS	INFORMATION SYSTEMS DIVISION	453-5164
MATTHEW RICKARD	INFORMATION SYSTEMS DIVISION	453-6240
RICHARD SLIPP	INFORMATION SYSTEMS DIVISION	453-8890
GEOFFREY STAPLES	INFORMATION SYSTEMS DIVISION	453-6235
FRANK STAPLETON	INFORMATION SYSTEMS DIVISION	453-6252
GLORIA STEWART	INFORMATION SYSTEMS DIVISION	453-2137
JANE TRITES	INFORMATION SYSTEMS DIVISION	453-6236
CHENG WU	INFORMATION SYSTEMS DIVISION	453-8876

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18 - 19, 1987

DEPARTMENTAL INFORMATION SYSTEMS COORDINATORS

Advanced Education and Training	Bill Waugh	453-2588
Agriculture	Rick Ward	453-3694
Alcohol and Drug Dependency	Ted Hudson	453-2136
Board of Management	Arnie Wilkins	453-3835
Cabinet Secretariat	Mike Wood	453-2314
Commerce and Technology	Gary Fraser	453-2965
Regional Development Corporation	Gordon Gilman	453-2277
Education	Gordon Scott	453-2785
Executive Council	Rick Phillips	453-2286
Finance	George Coy	453-6915
Fisheries	Diane Nadeau-Harmon	453-2251
General Government	Rick Phillips	453-2286
Health and Community Services	Ray McNeil	453-6396
Income Assistance	Tony Ratliffe	453-2882
Justice	Dianne Yates	453-3693
Labour	Stuart Oulton	453-3976
Legislative Assembly & Auditor General	Yves Godbout	453-2310
Municipal Affairs and Environment	Bill Morrison (Mun.)	453-2075
Municipal Affairs and Environment	William Ayer (Env.)	453-2669
Natural Resources and Energy	Lyndon Fairweather	453-5598
Occupational Health & Safety Comm.	Edward Lenarczyk	453-2467
Office of the Comptroller	Patrick Doherty	453-2250
Office of the Premier	Rick Phillips	453-2286
Supply and Services	Jerrie Fowler	453-3707
Tourism, Recreation and Heritage	Dean Mundee	453-7130
Transportation	Emilia Sousa	453-2990

INFORMATION SYSTEMS CLIENTS CONFERENCE

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PROJECT LEADERS	THE DEPARTMENTS THEY SERVE
Donna Clark	Income Assistance
Dick Slipp	Office of the Comptroller Board of Management Executive Council General Government Legislative Assembly and Auditor General Premier's Office Cabinet Secretariat
Jean Lee	Advanced Education and Training
Muhammad Hanif	Justice Education Office of the Comptroller (payrolls) Maritime Higher Education Commission New Brunswick Higher Education Commission
Matt Rickard	Health and Community Services Alcohol & Drug Dependency Commission
Mike Hennessey	Transportation
Richard Thomas	Municipal Affairs & Environment Finance
David Cowperthwaite	Commerce & Technology Supply & Services Natural Resources & Energy Tourism, Recreation & Heritage NB Occupational Health & Safety Commission Agriculture Fisheries Labour Regional Development Corporation N. B. Power Commission New Brunswick Housing NB Liquor Control Commission N. B. Liquor Corporation LRIS - Land Registration Non Government users
Diane Nadeau	Board of Management (New HRIS system)
George Phillips	Special Projects

PERIODICALS RELATED TO OFFICE AUTOMATION

Access: Management's Guide to Office Automation (ISD Library)

Office Management and Automation (ISD Library)

Patricia Seybold's The Seybold Report on Office Systems (ISD Library)

Patricia Seybold's Network Monitor (ISD Library)

Patricia Seybold's Unix in the Office (ISD Library)

Open Systems (Note 1)

Office (Note 1)

Datapro Reports on Office Systems (Note 1)

Datapro Reports on Word Processing (Note 1)

Administrative Management (Note 1)

Information & Records Management (Note 1)

Modern Office & Data Management (Note 1)

Officemation Reports (Note 1)

NOTE 1.

These were listed in a Bibliography of sources of Office Automation Information. Please contact the ISD library for a mailing address.

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN **NOVEMBER 18 - 19, 1987**

INHOUSE AND VIDEO COURSES RELATED TO OFFICE AUTOMATION

Office Automation: Issues and Options	Deltak
Management Strategies for Office Automation	Deltak
Integrating DP and Office Automation	Deltak
Designing Office Automation Systems	Deltak
The Impact of Office Automation on People	Deltak
Office Automation: The Essential Issues	Deltak

Put it in Writing	Deltak
Effective Writing	Deltak
Basic Business Writing	Deltak
Forms of Business Writing	Deltak
Word power - Vocabulary Building	Deltak
Better Business Letters	Deltak

Wang OIS Word Processing training	ISD Inhouse
Wang ALLIANCE Word Processing training	ISD Inhouse
Wang WP PLUS Word Processing training	ISD Inhouse
Wang OIS Systems Administration	ISD Inhouse
Wang ALLIANCE Systems Administration	ISD Inhouse
Wang basic OIS Glossary training	ISD Inhouse
Wang basic ALLIANCE Glossary training	ISD Inhouse
Wang ALLIANCE Visual Memory training	ISD Inhouse

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN **NOVEMBER 18 - 19, 1987**

BREAKOUT GROUPS

BREAKOUT GROUP 1 IN MEETING ROOM 1

DEPARTMENT	NAME	GROUP
AGRICULTURE	DINO KUBIK	1
COMMERCE AND TECHNOLOGY	GLEN HALLIHAN	1
EDUCATION	**GORDON SCOTT** *	1
HEALTH AND COMMUNITY SERVICES	JEAN-CLAUDE HACHE	1
TRANSPORTATION	JACQUIE CLEVELAND	1
MUNICIPAL AFFAIRS AND ENVIRONMENT	MARY ELLEN OWENS	1
MUNICIPAL AFFAIRS AND ENVIRONMENT	PAT TANG	1
NATURAL RESOURCES AND ENERGY	FAYE COWIE	1
NB HOUSING	DAVID BRANNEN	1
INCOME ASSISTANCE	TONY EASTERBROOK	1
SUPPLY AND SERVICES	JEAN-SERGE MAILLET	1
TOURISM, RECREATION AND HERITAGE	THOMAS PARKER	1
INFORMATION SYSTEMS DIVISION	GARY ANDREWS	1
INFORMATION SYSTEMS DIVISION	DANNY MACCALLUM	1
INFORMATION SYSTEMS DIVISION	TONY PAVELY	1
INFORMATION SYSTEMS DIVISION	MATTHEW RICKARD	1
INFORMATION SYSTEMS DIVISION	RICHARD SLIPP	1

BREAKOUT GROUP 2 IN MEETING ROOM 2

DEPARTMENT	NAME	GROUP
AGRICULTURE	RICK WARD	2
ALCOHOL AND DRUG DEPENDENCY	ARTHUR NAISH	2
EDUCATION	WILLIAM BRYDGES	2
FINANCE	A.V.M. (VERNON) KITCHEN	2
HEALTH AND COMMUNITY SERVICES	**RAY MCNEIL** *	2
TRANSPORTATION	LORI MACMULLEN	2
JUSTICE	DIANNE YATES	2
MUNICIPAL AFFAIRS AND ENVIRONMENT	MICHAEL MCKENDY	2
MUNICIPAL AFFAIRS AND ENVIRONMENT	DOUGLAS NEILSON	2
SUPPLY AND SERVICES	GAIL MITCHELL	2
TOURISM, RECREATION AND HERITAGE	ALLEN DOIRON	2
LAND REGISTRATION INFORMATION SYSTEM	RONALD RICHARD	2
INFORMATION SYSTEMS DIVISION	CHARLES CHIASSON	2
INFORMATION SYSTEMS DIVISION	RICHARD DUNPHY	2
INFORMATION SYSTEMS DIVISION	MUHAMMAD HANIF	2
INFORMATION SYSTEMS DIVISION	ROD MILLS	2
INFORMATION SYSTEMS DIVISION	GEORGE PHILLIPS	2

* INDICATES GROUP SPOKESPERSON

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN **NOVEMBER 18 - 19, 1987**

BREAKOUT GROUPS

BREAKOUT GROUP 3 IN MEETING ROOM 3

DEPARTMENT	NAME	GROUP
BOARD OF MANAGEMENT	ARNIE WILKINS	3
EDUCATION	DIANE WESTON	3
FINANCE	BARRY O'DONNELL	3
TRANSPORTATION	**EMILIA SOUSA ***	3
MARITIME HIGHER EDUCATION	DANIEL GODBOUT	3
MUNICIPAL AFFAIRS AND ENVIRONMENT	PLEN DICKSON	3
MUNICIPAL AFFAIRS AND ENVIRONMENT	GARY MERSEREAU	3
NATURAL RESOURCES AND ENERGY	SHARON REYNOLDS	3
OFFICE OF THE COMPTROLLER	RON TILLEY	3
INCOME ASSISTANCE	DENISE CHASE	3
SUPPLY AND SERVICES	JERRIE FOWLER	3
SUPPLY AND SERVICES	HELENE BARRETTE	3
SUPPLY AND SERVICES	NAOTO KONDO	3
TOURISM, RECREATION AND HERITAGE	EUNICE STRINGER	3
INFORMATION SYSTEMS DIVISION	DAVID LOUKES	3
INFORMATION SYSTEMS DIVISION	MICHAEL HENNESSEY	3
INFORMATION SYSTEMS DIVISION	JEAN LEE	3
INFORMATION SYSTEMS DIVISION	KEITH MURRAY	3

BREAKOUT GROUP 4 IN ROOM 108

DEPARTMENT	NAME	GROUP
COMMERCE AND TECHNOLOGY	GARY FRASER	4
FINANCE	DAYLE RIVA	4
HEALTH AND COMMUNITY SERVICES	CHARLES MCKENDY	4
TRANSPORTATION	LOIS MACBETH	4
LABOUR	STUART OULTON	4
MUNICIPAL AFFAIRS AND ENVIRONMENT	BRIAN BURRELL	4
MUNICIPAL AFFAIRS AND ENVIRONMENT	SHIRLEY GILLIES	4
MUNICIPAL AFFAIRS AND ENVIRONMENT	LAWRENCE PETERS	4
NATURAL RESOURCES AND ENERGY	**LYNDON FAIRWEATHER ***	4
ADVANCED EDUCATION AND TRAINING	NORMAND BRUNELLE	4
INCOME ASSISTANCE	GARY BAIRD	4
SUPPLY AND SERVICES	BERNICE CORMIER	4
TOURISM, RECREATION AND HERITAGE	LAURIE ROBICHAUD	4
TOURISM, RECREATION AND HERITAGE	JOYCE WATERHOUSE	4
INFORMATION SYSTEMS DIVISION	HARVEY BUTTON	4
INFORMATION SYSTEMS DIVISION	DAVID COWPERTHWAITE	4
INFORMATION SYSTEMS DIVISION	BILL HALL	4
INFORMATION SYSTEMS DIVISION	THOMAS HARDING	4

* INDICATES GROUP SPOKESPERSON

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN NOVEMBER 18 - 19, 1987

BREAKOUT GROUPS

BREAKOUT GROUP 5 IN ROOM 109

DEPARTMENT	NAME	GROUP
REGIONAL DEVELOPMENT CORPORATION	CHARLES-EDOUARD LANDRY	5
BOARD OF MANAGEMENT	DAVE STRANG	5
FINANCE	JIM DROVER	5
FINANCE	JACQUES FOURNIER	5
HEALTH AND COMMUNITY SERVICES	JOHN CUTHBERT	5
TRANSPORTATION	CAROL YOUNG	5
JUSTICE	DAVID McLEOD	5
MARITIME HIGHER EDUCATION	JEAN FISHER	5
MUNICIPAL AFFAIRS AND ENVIRONMENT	WILLIAM AYER	5
MUNICIPAL AFFAIRS AND ENVIRONMENT	BILL MORRISON	5
NB HOUSING	GRANT MACLEOD	5
OFFICE OF THE COMPTROLLER	PATRICK DOHERTY *	5
INCOME ASSISTANCE	PETER HUGHES	5
SUPPLY AND SERVICES	DIANE LEBOUTHILLIER	5
TOURISM, RECREATION AND HERITAGE	DEAN MUNDEE	5
INFORMATION SYSTEMS DIVISION	DONNA CLARK	5
INFORMATION SYSTEMS DIVISION	BOB ELLIS	5
INFORMATION SYSTEMS DIVISION	SHIRLEY TOTTEN	5

* INDICATES GROUP SPOKESPERSON

INFORMATION SYSTEMS CLIENTS CONFERENCE

FREDERICTON INN **NOVEMBER 18 - 19, 1987**

SUGGESTED TOPICS FOR THE FIFTH INFORMATION SYSTEMS CLIENTS CONFERENCE

There have been four Information Systems Client Conferences.

- May 21 - 22, 1986; on 'Information Systems Division Services'.
- October 21 - 22, 1986; on 'Micro Computers'.
- April 22 -23, 1987; on 'Communications'.
- November 18 -19, 1987; on 'Office Automation'.

Once again, we are requesting topics for the next (fifth) conference tentatively scheduled for May 25 - 26, 1988. Some suggested topics are listed, would you please take a moment to check any topics listed in which you are interested; to indicate any other topics you would like to see covered; and to indicate a main theme or focus for this next conference. These conferences are only as useful as we all make them - we look forward to receiving your suggestions. Once we select possible topics we will be recruiting three clients to serve on the planning committee, to arrange this next conference.

NAME ________________________________

TOPICS

Relational databases & 4GL's ________
Technology strategy & direction ________
Increasing productivity of I. S. resources ________
Managing & planning I. S. resources ________
How Computers are changing our work practices ________
How each department uses automation ________

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PLEASE RETURN TO:
GARY ANDREWS INFORMATION SYSTEMS DIVISION CENTENNIAL BUILDING R613